

The Commercial Car Journal

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WANTED:

10,000 PROSPEROUS SALESMEN

CONFIDENCE is one of the most important requisites of the salesman's profession. He must have confidence in the firm he is working for, confidence in the product he is selling and confidence in himself. Without confidence the salesman is battling against great odds, especially when selling motor trucks.

Why do some motor truck salesmen lose confidence? We will assume that the salesman is a clean cut fellow, a good worker, full of enthusiasm and all that. He

THERE'S A REASON knows his product from A to Z. He has all the qualifications that a good salesman should have.

The truck he sells seems to stand up as well as any other make; he sells a fair number of trucks, but down deep in his heart he knows that he isn't making good. He has **LOST CONFIDENCE!**

But why? He is selling trucks, he hasn't laid down on the job, he battles for the order as well as the best of 'em—what's the reason for this lack of confidence.

It's very simple. You will find a lot of it if you will ask some salesman to give you the "low down" on it.

Here's the answer—he **has** sold a number of trucks during the past—but how much **PROFIT** was there in it for him? He is trying to sell a vehicle on which there is no definite price and consequently there is no definite earning in it for him. Sooner or later his confidence in the business fades—he sees no real future, because no matter how hard he applies himself he finds it increasingly difficult to keep up his enthusiasm. Without enthusiasm for the business he is lost.

It's a fact that many salesmen have quit the motor truck business because they had to do more bartering than selling. All their qualifications as salesmen were

NO "KICK" IN IT nullified in the mad scramble to sell on a price basis. When a

sale is made as a result of price consideration only, the "kick" which comes from making a clean cut sale is absent. The romance, enthusiasm, idealism, inspiration, glory, and all the attributes which keep the salesman "pepped up" including an adequate reward for his efforts are drowned in the maelstrom of vicious price dickering.

We hate to admit these things—but they are the gospel truth.

Is it any wonder that some dealers complain that they cannot obtain good salesmen? Of course, there are plenty men available to keep the "drawing-account-fund" down to the minimum. But that isn't getting you anywhere, is it, Mr. Dealer? Big drawing accounts and no profits are not contributing factors to a successful business.

After reviewing this situation carefully, doesn't it appear as if the truck salesman is getting a pretty raw deal. What incentive is there in it for him to talk quality of the product,

NOT A CHANCE reputation of the factory and so on, when the lack of an advertised established price simply throws all such arguments into the discard. He hasn't a leg to stand on, so to speak, when salesman-ship is relegated to the back ground and "price" dickering is made the main issue.

The morale of the truck salesman and his enthusiasm for the business cannot be built up by

price cutting or wild trading, neither can the salesman receive the remuneration he ought to have if the dealer does not make the profit he should. Somebody has to stand the loss. It must come in somewhere.

That somewhere is in the dealer's pocketbook.

In selling trucks that have no definite price, the dealer doesn't make his legitimate profit. Less profit or no profit means less funds available for proper sales promotion.

Instead of engaging salesmen who can sell transportation, he must employ the less experienced salesman. This, coupled with the fact that

WHERE'S THE PROFIT

the profits are not at all commensurate with the effort he may be putting behind the truck, makes him skeptical as to the potentialities of the truck business in his community, with the result, that he looks upon his truck quota as a necessary evil.

Now the reason the dealer gets into this frame of mind is because his sales effort dwindles into a price deal. If the trucks have been consigned to the dealer all incentive for the dealer as well as the salesmen is killed. With no definite list price the dealer is supposed to use his best judgment—which he doesn't.

Now how are we to get ten thousand prosperous salesmen? And what will they do when we get them?

First, let us stop price dickering—foolish trade-ins, crazy allowances, unbusiness-like terms, irresponsible credits, unjustified guarantees, and unlimited servicing.

HOW TO GET THEM

Let us sell our trucks for what they will do in the actual work to which they are to be put.

Let us ask a price commensurate with the performance of which we know they are capable.

Let us extend credit to those who are entitled to it and make our terms conform to policies in other lines of merchandising.

Let us set our prices on legitimate margins of profit and stand with full confidence in our product and the respect our methods will command among reputable buyers who use similar ideals in their own business.

This kind of business appeals to the highest type of salesman—the one with ability, ingenuity, versatility, constructive imagination and enthusiasm.

Transportation is today the most talked about actuality in our business life. What doesn't depend to some considerable extent upon it?

What strides and advances have been made in all details of this great national and international problem?

And what are we doing about it? Are we standing by more or less idly or are we accepting our share of responsibility and keeping pace with other "big" business?

WHAT would 10,000 prosperous salesmen mean to the truck business? Just the difference between progress and prosperity and stagnation and bankruptcy. 10,000 prosperous salesmen would mean 10,000 more and as many more as may be required to handle the Greatest Single Unit in World's Progress—Motor Transportation!

The hardware merchant sold three electric washing machines last week—He knows what his profit is!

The insurance salesman just sold a \$20,000 insurance policy—He knows what his commission is!

The machinery dealer sold four lathes last week—He knows what his profit is!

The truck salesman sold two trucks last week—He is still trying to find the profit!

SPACE AT CHICAGO ROAD SHOW GREATLY OVERSUBSCRIBED

18 Truck Manufacturers Will Exhibit

WHEN the applications for space in the Good Roads Show to be held next January 5th to 9th, in the Chicago Coliseum and adjoining buildings, were opened, it was found that the space available for heavy machinery was 200 per cent oversubscribed and the space in which high machinery could be installed was 400 per cent oversubscribed. It is hardly necessary to say that this made the allotment of space an extremely difficult matter and a new arrangement of aisles had to be worked out before even an approximately satisfactory solution was found.

It was, of course, necessary to make a uniform cut in the space applied for, but the exhibitors, realizing the situation, have co-operated with the committee in charge by curtailing their exhibits and at the same time presenting the machines and products which they know will be of most interest to the throngs of contractors who will attend the Show.

The A. R. B. A. convention, which will be held simultaneously with the Road Show, will again be at the Congress Hotel. The program, which has been prepared by Prof. T. R. Agg, contains a long list of subjects which are of vital interest to every one engaged in road construction. The contractor, the engineer, the public official and all others active in the highway industry will find the papers and discussions of great interest.

Arrangements have been made this year to handle hotel reservations in such manner that every one will be properly cared for. A special hotel committee has prepared a booklet giving a list of Chicago hotels with their rates and containing a reservation blank. This booklet will be sent to any one who wishes it.

The Entertainment Committee is planning to take good care of the time not already allotted to the sessions of the Convention and the Road Show. The delegates and guests of the Association will find plenty to do every minute while they are in Chicago. The annual banquet of the A. R. B. A.

will be held at the Congress Hotel on Wednesday evening, January 7th. A dance at the Club Chez Pierre and the usual exhibitor's night in the First Regiment Armory near the Coliseum also are on the entertainment program.

Those who attend the Convention and Road Show will be able to keep in touch with what is going on through "The Highwayman," the official A. R. B. A. paper, which will be issued daily as in the last two years. The official announcements, the program of the day and various other matters of interest will be published in "The Highwayman."

C. M. Upham, Business Director of the Association, opened headquarters at the Congress Hotel on December 1st. These headquarters will be maintained until the end of the Convention and Road Show and all who desire information in regard to either Convention and Show should write to the American Road Builders' Association, Congress Hotel, Chicago.

ON the following pages will be found reports from some of the exhibitors as to what they will display at the Good Roads Show.

Because of the late date on which the exhibitors list was released by the American Good Road Builders' Association it was impossible for us to get as full returns from the exhibitors as we had hoped. Quite a few letters were received which indicated that the exhibitors were not ready to announce their exhibits until practically at show time. Others being forced to accept less space than they had anticipated, are as yet undecided as to the details of their exhibit.

EXHIBITORS AT 1925 GOOD ROADS SHOW

Adams, J. D. & Co., Indianapolis, Ind.
 Adams & Westlake Co., Chicago, Ill.
 Alan Wood Iron & Steel Co., Phila., Pa.
 American Bolt Corp., Chicago, Ill.
 American Bosch Mag. Co., Springfield, Mass.
 American Casting Co., Birmingham, Ala.
 Amer. Cement Mach. Co., Inc. Keokuk, Ia.
 American City Magazine, New York City
 Amer. Gas Accumulator Co., Elizabeth, N. J.
 Amer. Hoist & Derrick Co., St. Paul, Minn.
 Amer. Malleable Castings Assn., Cleveland, O.
 Amer. Mang. Steel Co., Chicago Hgts., Ill.
 American Steel & Wire Co., Chicago, Ill.
 American Tar Products Co., Chicago, Ill.
 American Vibrolithic Corp., Des Moines, Ia.
 Amiesite Asphalt Co. of Amer., Phila., Pa.
 Anthony Co., Inc., Streator, Ill.
 Archer Iron Works, Chicago, Ill.
 Armco Culvert & Flume Mfrs. Assn., Mid-
 dletown, Ohio.
 Asphalt, The Association, New York City
 Asphalt Block Pavement Co., Toledo, Ohio
 Austin Machinery Corp., Toledo, Ohio
 Austin Mfg. Co., Chicago, Ill.
 Austin-Western Road Mach. Co., Chicago
 Autocar Sales & Service Co., Chicago, Ill.
 Automatic Signal & Sign Co., Chicago, Ill.

Baker, The Mfg. Co., Springfield, Ill.
 Barber Asphalt Co., Philadelphia, Pa.
 Barber-Greene Co., Aurora, Ill.
 Barnes, The Mfg. Co., Mansfield, Ohio
 Barrett Co., The, New York City
 Bates Machine & Tractor Co., Joliet, Ill.
 Beach Mfg. Co., Charlotte, Mich.
 Beaver Mfg. Co., Milwaukee, Wis.
 Best, C. L., Tractor Co., St. Louis, Mo.
 Black & Decker Mfg. Co., Baltimore, Md.
 Blaw-Knox Co., Pittsburgh, Pa.
 Brown Hoisting Machinery Co., Cleveland, O.
 Brookville Truck & Trac. Co., Brookville, Pa.
 Buckeye Traction Ditcher Co., Findlay, Ohio
 Bucyrus Co., South Milwaukee, Wis.
 Buda, The Co., Harvey, Ill.
 Buhl Co., Chicago, Ill.
 Burch Plow Works, Crestline, Ohio
 Butler Equipment Co., Waukesha, Wis.
 Byers Machine Co., Ravenna, Ohio

Carey, Philip, Co., Cincinnati, Ohio
 Carter, Ralph B., Co., New York City
 Celite Products Co., New York City
 Cement Gun Co., Allentown, Pa.
 Chain Belt Co., Milwaukee, Wis.
 C. H. & E. Mfg. Co., Milwaukee, Wis.
 Chicago Pneumatic Tool Co., New York City
 Clay Products Assn., Chicago, Ill.
 Cleveland Tractor Co., Chicago, Ill.
 Cleveland Wheelbarrow & Mfg. Co., Chicago
 Climax Engineering Co., Clinton, Iowa
 Clyde Iron Works Sales Co., Duluth, Minn.
 Commerce Motor Truck Co., Ypsilanti, Mich.
 Concrete Steel Co., New York City
 Concrete Surfacing Machy Co., Cincinnati
 Construction Machinery Co., Waterloo, Iowa
 Continental Motors, Detroit, Mich.
 Cook Motor Co., Delaware, Ohio
 Cropp, B. M., Co., Chicago, Ill.
 Cummer, F. D., & Son Co., Cleveland, Ohio

Domestic Engine & Pump Co., Shippens-
 burg, Pa.
 Dow Chemical Co., Midland, Mich.

East Iron & Machine Co., Lima, Ohio.
 Eisemann Magneto Corp., Brooklyn, N. Y.
 Elgin Sales Corp., Chicago, Ill.
 Electric Wheel Co., Quincy, Ill.
 Erie Steam Shovel Co., Erie, Pa.
 Erie Steel Construction Co., Erie, Pa.
 Essco Mfg. Co., Peoria, Ill.
 Equipment Corp. of Amer., Chicago, Ill.
 Etnyre, E. D., & Co., Oregon, Ill.

Fairbanks, Morse & Co., Chicago, Ill.
 Fate-Root-Heath Co., The, Plymouth, Ohio
 Foote Co., Nunda, N. Y.
 Foote Concrete Mach'y Co., Chicago, Ill.
 Ford Power Equip. Expo., New York City
 Four Wheel Drive Auto Co., Clintonville, Wis.
 French & Co., A. W., Chicago, Ill.
 French & Hecht, Davenport, Iowa
 Full-Crawler Co., Milwaukee, Wis.
 Fuller & Johnson Mfg. Co., Madison, Wis.

Galion Allsteel Body Co., The, Galion, Ohio
 Garford Motor Truck Co., Lima, Ohio
 General Motors Truck Co., Pontiac, Mich.
 Gerlinger Electric Steel Casting Co., West
 Allis, Wis.
 Gilbert Mfg. Co., Aberdeen, S. D.
 Godwin Co., Inc., W. S., Baltimore, Md.
 Good Roads Mach'y Co., Chicago, Ill.
 Graham Brothers, Detroit, Mich.
 Gray Tractor Co., Chicago, Ill.
 Green, L. P., Chicago, Ill.
 Griswold Safety Sig. Co., Minneapolis, Minn.

Hadfield-Penfield Steel Co., Bucyrus, Ohio
 Haiss Mfg. Co., Geo., New York City
 Handy Sack Baler Co., Marion, Iowa
 Hastings Pavement Co., New York City
 Hayward Co., The, New York City
 Heil Co., Milwaukee, Wis.
 Heltzel Steel Form & Iron Co., Warren, Ohio
 Hercules Corp., Evansville, Ind.
 Hercules Motors Corp., Canton, Ohio
 Highland Body Mfg. Co., Cincinnati, Ohio
 Highway Trailer Co., Edgerton, Wis.
 Hinkley Motors, Inc., Ecorse, Mich. (Detroit)
 Hoar Shovel Co., Duluth, Minn.
 Holt Mfg. Co., Peoria, Ill.
 Hoosier Asphalt Co., Alexandria, Ind.
 Horst & Strietor Co., Davenport, Iowa
 Huber Mfg. Co., Marion, Ohio
 Hug Co., Highland, Ill.
 Hughes-Keenan Co., Cleveland, Ohio
 Humphries Mfg. Co., The, Mansfield, Ohio
 Hvass, Chas., & Co., New York City
 Hydraulic Hoist Mfg. Co., Inc., St. Paul, Minn.

Ideal Concrete Mach. Co., The, Cincinnati, O.
 Indiana Truck Corp., Marion, Ind.
 Ingersoll Rand Co., New York City
 Insley Mfg. Co., Indianapolis, Ind.
 International Motor Co., New York City

Jackoboice, Edw. J., Grand Rapids, Mich.
 Jaeger Machine Co., Columbus, Ohio
 Johnson, C. S., Eng. Co., Champaign, Ill.
 Jones Superior Machine Co., Chicago, Ill.

Kalman Steel Co., Chicago, Ill.
 Kentucky Rock Asphalt Co., Louisville, Ky.
 Keystone Driller Co., Chicago, Ill.
 Kinney Mfg. Co., Boston, Mass.
 Koehring Co., Milwaukee, Wis.
 Koppel Ind. Car & Equip. Co., Chicago, Ill.
 Kwik-Mix Concrete Mixer Co., Milwaukee

Lakewood Engineering Co., Cleveland, Ohio
 Leach Co., Oshkosh, Wis.
 Le Roi Co., Milwaukee, Wis.
 Lee Trailer & Body Co., Chicago, Ill.
 Lewis, F. J., Mfg. Co., Chicago, Ill.
 Link Belt Co., Chicago, Ill.
 Little Red Wagon Co., Omaha, Neb.
 Loco. Crane Co. of America, Champaign, Ill.
 Louer, W. B., Co., Chicago, Ill.
 Lufkin Rule Co., Saginaw, Mich.

Macon Concrete Roller Co., Macon, Ga.
 Macknel Signal Corp., Lancaster, N. Y.
 Marion Steam Shovel Co., Marion, Ohio
 Marsh-Capron Co., Chicago, Ill.
 Mead-Morrison Mfg. Co., Chicago, Ill.
 Metal Forms Corp., Milwaukee, Wis.
 MacWhyte Co., Chicago, Ill.
 Miami Trailer-Scraper Co., The, Troy, Ohio

Midwest Locomotive Works, Cincinnati, Ohio
 Milwaukee Locomotive Mfg. Co., Milwaukee,
 Monarch Tractors, Inc., Watertown, Wis.
 McMyler Interstate Co., The, Cleveland, Ohio

National Pavements Corp., New York City
 Nat. Paving Brick Mfrs. Assn., Cleveland, O.
 National Steel Fabric Co., Pittsburgh, Pa.
 Noble Motor Truck Co., Kendallville, Ind.
 North'n Conv. & Mfg. Co., Milwaukee, Wis.
 Northwest Eng. Works, Chicago, Ill.
 Novo Engine Co., Lansing, Mich.

O'Connell Motor Truck Co., Waukegan, Ill.
 Olsen, Tinius & Co., Philadelphia, Pa.
 O. K. Clutch & Mach'y Co., Columbia, Pa.
 Orton & Steinbrenner Co., Chicago.
 Oshkosh Motor Truck Mfg. Co., Oshkosh, Wis.
 Owen Bucket Co., Cleveland, Ohio.

Page Steel & Wire Co., Bridgeport, Conn.
 Parsons Co., Chicago, Ill.
 Pawling & Harnischfeger Co., Milwaukee
 Pekin Wagon Co., Pekin, Ill.
 Peru Plow & Wheel Co., Peru, Ill.
 Pittsburgh Testing Laboratory, Pittsburgh
 Portland Cement Assn., Chicago, Ill.

Racine Radiator Co., Racine, Wis.
 Ransome Concrete Mach. Co., Dunellen, N. J.
 Republic Motor Truck Co., Alma, Mich.
 Robert Bosch Mag. Co., Chicago, Ill.
 Rock Products, Chicago, Ill.
 Russell Grader Mfg. Co., Minneapolis, Minn.
 Russell & Co., The, Massillon, Ohio
 Ryerson, Joseph T., & Son, Chicago, Ill.

Sauerman Bros., Chicago, Ill.
 Schramm, Inc., West Chester, Pa.
 Service Motor Truck Co., Wabash, Ind.
 Shaw-Enochs Tractor Co., Minneapolis, Minn.
 Simplicity Engineering Co., Gladwin, Mich.
 Sivyer Steel Castings Co., Milwaukee, Wis.
 Smith Engineering Works, Milwaukee, Wis.
 Smith, T. L. Co., Milwaukee, Wis.
 Snap-On Wrench Co., Chicago, Ill.
 Speeder Machinery Corp., Fairfield, Iowa
 Splitdorf Electrical Co., Newark, N. J.
 Standard Scale & Supply Co., Pittsburgh, Pa.
 Sterling Motor Truck Co., Milwaukee, Wis.
 Sterling Wheelbarrow Co., Milwaukee, Wis.
 Stockland Road Mach. Co., Minneapolis, Minn.
 Sullivan Machinery Co., Chicago, Ill.
 Superior Boiler Works, Marion, Ind.
 Sweet's Steel Co., Williamsport, Pa.

Tennessee Tool Works, Inc., Knoxville, Tenn.
 Texas Co., The, New York City
 Thew Shovel Co., Lorain, Ohio
 Toledo Road Machine Co., Toledo, Ohio
 Topping, Chas. T., Mach. Co., Pittsburgh, Pa.
 Truscon Steel Co., Youngstown, Ohio.
 Twin Disc Clutch Co., Racine, Wis.

Universal Crane Co., Cleveland, Ohio.
 Universal Crusher Co., Cedar Rapids, Iowa.
 United Alloy Steel Corp., Canton, Ohio.
 Union Iron Products Co., East Chicago, Ind.
 United Motors Co., Grand Rapids, Mich.
 Universal Motor Co., Oshkosh, Wis.

Vulcan Iron Works, Wilkes-Barre, Pa.

Warren Bros. Co., Boston Mass.
 Watson Truck Corp., Canastota, N. Y.
 Waukesha Motor Co., Waukesha, Wis.
 Wausau Iron Works, Wausau, Wis.
 Wehr Company, Milwaukee, Wis.
 Western Wheeled Scraper Co., Aurora, Ill.
 White Company, The, Cleveland, Ohio
 Whitcomb, Geo. D., Company, Rochelle, Ill.
 Wiard Plow Company, Batavia, N. Y.
 Williams, Company, G. H., Erie, Pa.
 Williams Pat. Crusher & Pulv. Co., St. Louis
 Wood Hydraulic Hoist & Body Co., Chicago

A Few of the Exhibits at the Good Roads Show, Chicago, January 5th to 9th

The Republic Motor Truck Co., Inc., will exhibit one model 19 W.R.B. Road Builder and one model 19, equipped with Woods steel dump body and underbody hoist. A new Republic model 35—5-ton capacity—equipped with a 4 yard F 4 dump body and underbody hoist will be announced at the show. This is an entirely new model and is an addition to the present Republic line.

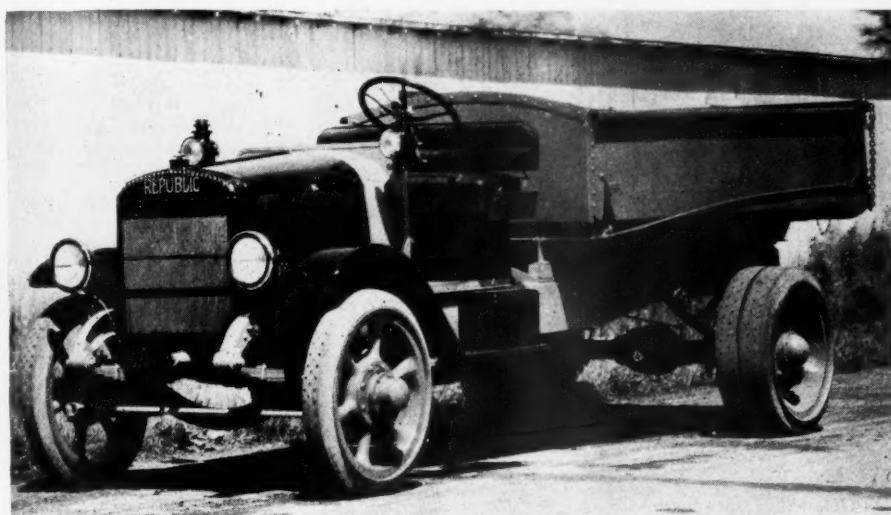
Climax Engineering Co. will exhibit a model KU 4-cylinder 5 in. x 6½ in. enclosed flywheel type gasoline engine mounted on pedestal complete, a model TU, 4-cylinder, 5½ in. x 7 in. gasoline industrial power unit, and a model RU 6-cylinder, 5½ in. x 7 in. gasoline engine complete with power take off and radiator mounted on cast iron rails. Engine parts will also be shown.

The Hug Company will have a complete exhibit as follows:

One new Model H4, 2½-ton Hug truck chassis, equipped with the new Hug cam-roller automatic dump body. This chassis is good for two 5-sack batches 1-2-3½ mix or two 6-sack batches, 1-1½-3 mix.

One model HA Hug truck chassis 1¾-ton capacity and one model TA Hug Truck chassis 1½-ton capacity. Both models will also be equipped with the new Hug cam-roller automatic dump body. Several of these bodies, including the scoop and end gate type will also be shown. The Hug body dumps with exceptional speed and in transit provides low center of gravity and forward slung advantages. This not only permits safe driving at high speed, but the equal load distribution secured protects the tires, the truck, and the subgrade. This means economy in tires—and on the subgrade, and longer life to the truck.

One new Hug automatic pre-mixing, self-cleaning, cement compartment. This fills a long felt need. It meets the pre-mixing requirements of the most rigid specifica-

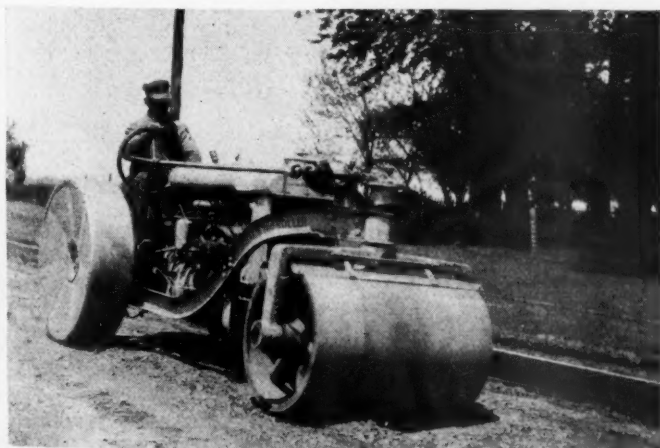


The New Republic Model 35, 4 Yd. Dump Truck

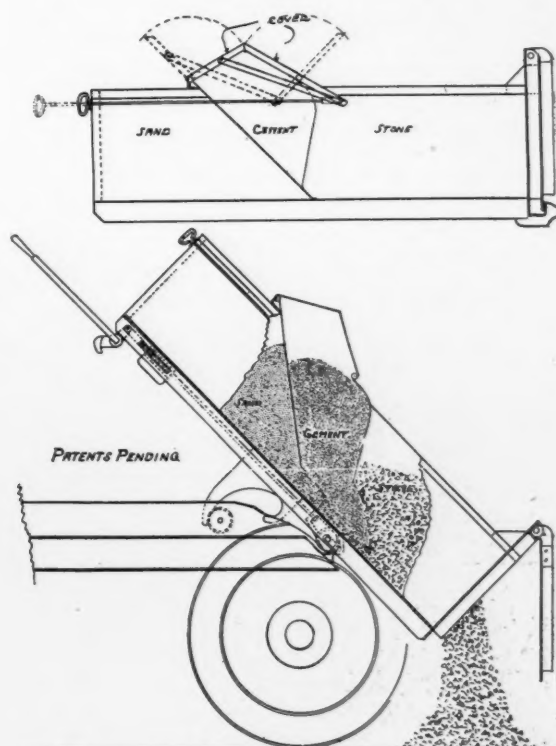
All of the models to be exhibited will carry standard equipment, steel wheels, the new enclosed in oil Eaton axle, the improved Republic drive shaft brake and full pressure lubrication for the engine.

General Motors Truck Co. will show one model K-41-T, with a dump body. The K-41-T is the short wheel base tractor length.

Horst & Strieter Co. will display the Winchell 3 to 4 ton road roller which is designed for all kinds of subgrade work, road maintenance and so forth. The power plant is a Fordson tractor engine.



The Winchell Road Roller



The Hug Dump Body With Automatic Premixing, Self-Cleaning Cement Compartment

tions in an efficient and thoroughly acceptable manner.

One new Hug Turntable. This new turntable operates on an entirely new but practical principle. The two unique features in the design are that the entire load is turned on a ball and socket, that a perfect balance can be maintained by means of two rollers and two wheels and that a self-adjustable approach support automatically meets any uneven conditions on subgrade. In line with standards of modern efficiency, the turntable is strongly built but with as light weight as is consistent with the work it is designed to do.

Only one man is required to operate the loaded turntable. By turning and locking wheels, it is easily moved ahead to new position without damage to the subgrade by two men and can thus be kept close to the work, thereby reducing the distance trucks must be backed to deposit the load.

The new Hug subgrade planer with disc scarifier attachment at the head of the machine loosens the soil and makes the work of the grader blades easier and more accurate. The machine is supported on the road forms with cast rollers, and runs true to the forms. The grader blades are set at an angle that insures the easiest and most perfect cutting. The cutting depth can be easily adjusted.

It not only planes the subgrade to the exact specifications required, but saves extra labor and time by depositing surplus earth in places below the necessary grade. Surplus earth is carried ahead of the blade. Raising the blade by means of the patented crank axle and wheels deposits this earth in piles where it can be quickly removed.



The Schramm Rock Drilling Outfit at Work

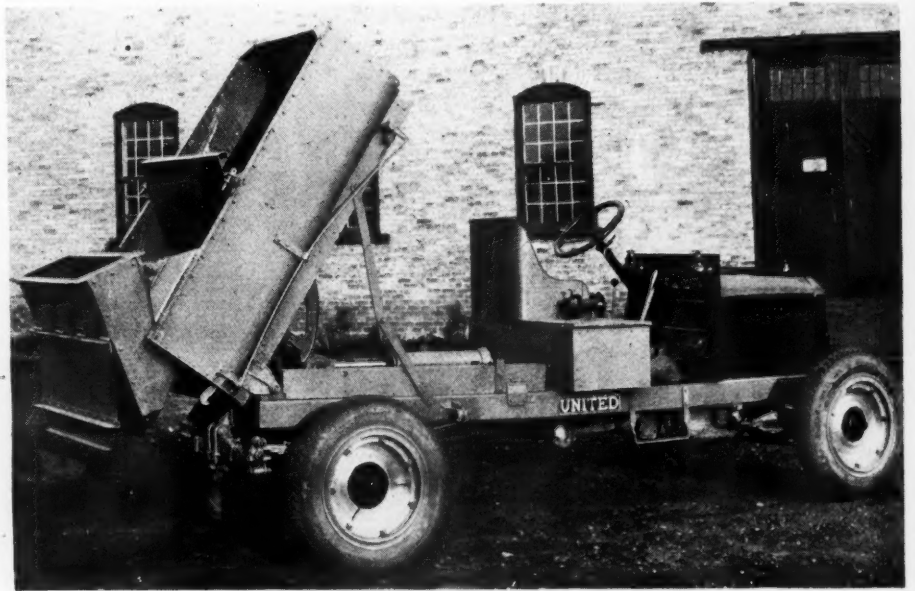
The United Motors Products Company will exhibit their Road Constructor. This model is of unusual interest to road builders, owing to the unique methods of carrying materials, and the various features incorporated, which are of special design for this class of service.

One of the important features is the spring suspension, which gives ideal load distribution on all four wheels, enabling the truck to carry the materials over a subgrade with a minimum of damage to the grade.

The frame and all units are unusually sturdy, which gives long life

gineers, with a capacity of thirty-six cubic feet. The gravel is carried in the forward compartment, and the sand in the rear compartment, and separated by swinging partitions. The cement is carried in the hopper which also forms the tailgate. This construction eliminates the cement from becoming wet, and also dumps the cement direct in the skip, preventing any caking in the body. The cement compartment is also furnished with covers to prevent the cement from blowing away.

A Wood underbody hoist is used, and a dumping angle of 70 deg.



The Road Constructor—a New Job by United Motors

and stability under the severest conditions. The engine is of Hercules design, four-cylinder, equipped with Zenith carburetor, Bosch high-tension magneto and Brown-Lipe three speed transmission. The rear axle is of the double reduction type. The body was developed by United En-

gineers. The high dumping angle, together with a tapered body which is 8 in. wider at the rear than in the front, permits the dumping of wet mix. When wet mix is hauled the swinging partition and cement hopper are removed, and the conventional type tailgate fitted. Pneumatic tires are standard equipment, with 32 x 6 front and 34 x 7 rear.

Schramm, Inc., will show the Compressor-Tractor. Rock drilling is one of the most important uses for these outfits. Any hard surfaced road, no matter what type, must have rock as a foundation. The Schramm Compressor-Tractor is particularly suited for rock drilling in quarries.

The Burch Plow Work Co. will exhibit miniature models of the Burch Stone, Gravel, Sand and Coal Unloader, operated by an electric motor, showing material moving. Also a miniature model of a Portable Unloader of the belt type; a model of Stone Spreader with wings; and a full size Stone Spreader, on the floor. This, together with samples of cast iron pipe, will complete their exhibit.

Gerlinger Electric Steel Casting Co. will exhibit castings made of carbon steel suitable for road building equipment and will specialize on a display of Hard-Wear steel used for trench machine, grab bucket and steam shovel teeth and rock crushing jaws, mantles, etc. This is a new product which this company will announce at the show.

Robert Bosch Magneto Company, Inc. will exhibit a complete line of magnetos, plugs and starting and lighting equipment. This company will feature its constant voltage generator.

Beach Manufacturing Co. will show its Dragline hoists and buckets. These buckets are designed for stripping gravel pits; for putting gravel into trucks, bins or storage piles and for moving sand and gravel into conveyors.

Elgin Sales Corporation will show its 1925 model Elgin Pick-Up Sweeper. The particular features of this model are the patented flexible gutter cleaning side broom so that the broom will swing out of the way without damage if the driver drives the machine too close to the curb; and a non-clogging open bottom patented pickup arrangement by means of which the main rotary broom under the machine delivers the sweepings to an endless belt without clogging and without breaking any of the parts no matter if bricks, stones, sticks, etc., are picked up.

The exhibit will also include the 1925 model of the Auto-Eductor. This apparatus can be mounted on various makes of truck chassis. It is primarily designed for cleaning out catch basins. It may also be equipped for flushing streets, sprinkling roads, etc.

The Four Wheel Drive Auto Co. will exhibit its standard model B 3-ton FWD chassis without body or extra equipment.

Splitdorf Electrical Company will exhibit its complete line of magnetos and spark plugs. The Splitdorf model SS magneto is particularly adapted for heavy duty service and will be featured at the show.

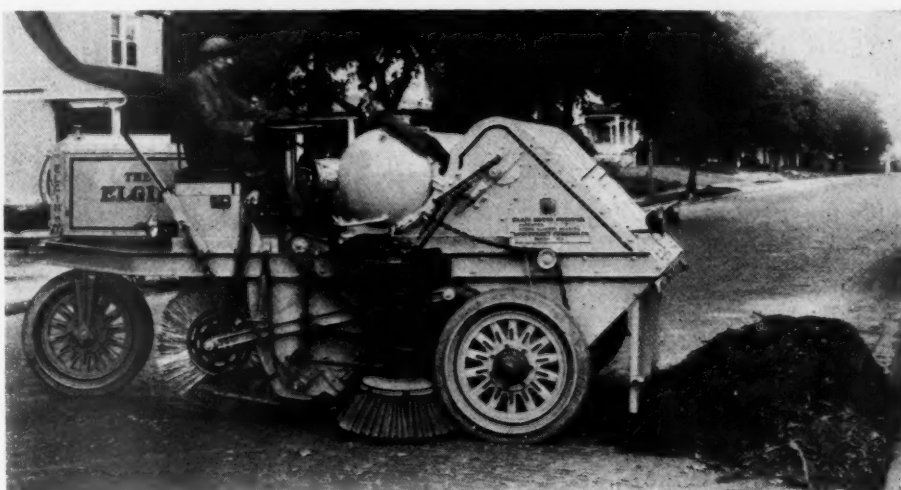
The Humphries Manufacturing Company will exhibit a new line of high capacity pumps including a single 4-in. high capacity diaphragm pump capable of 12,000 gallons per hour, and also a double 4-in. unit capable of 18,000 to 22,000 gallons per hour.

Jones Superior Machine Co. will exhibit one No. 2 and one No. 4 Contractor's Saws. These saws are portable and are operated by a Le Roi gasoline engine. These saws have been on the market about a year and a half but will be shown for the first time at this show.

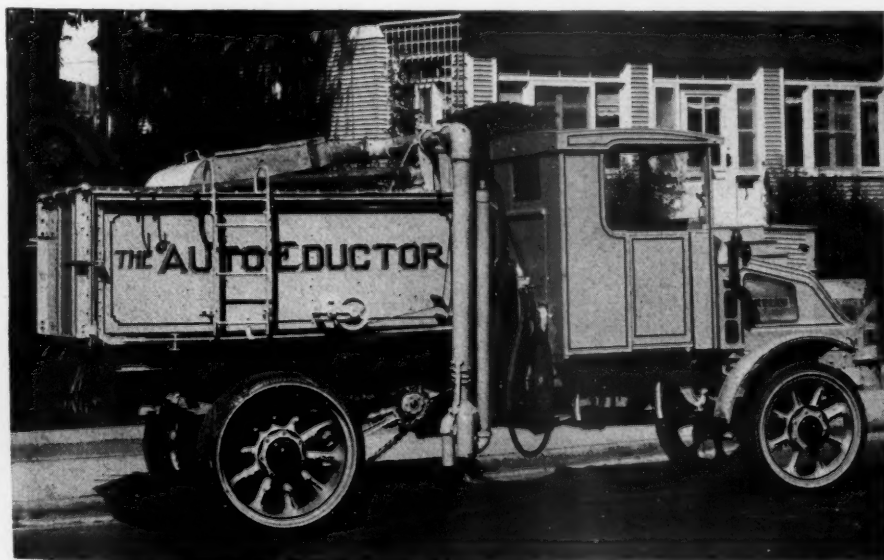
Tennessee Tool Works, Inc., will display two models of its new Ault Traffic Line Marking Machines. These machines are great labor savers, as they can do more work in one hour than ten men, in painting traffic and special zone lines. They will paint lines three to eight inches wide and by means of an extra attachment they can be used to spray fire plugs, guard rails, bridges, etc. All kinds of liquid paints, white-wash and disinfectants can also be handled by these machines.

Butler Equipment Company will exhibit a set of standard type measuring hoppers supported by a suitable frame, a working model of its folding steel bin with a set of measuring hoppers attached and a generous display of pictures of its bins and measuring hoppers in actual operation.

The Brookville Truck and Tractor Co. will display one model of its line of gasoline engine powered small gauge locomotives.



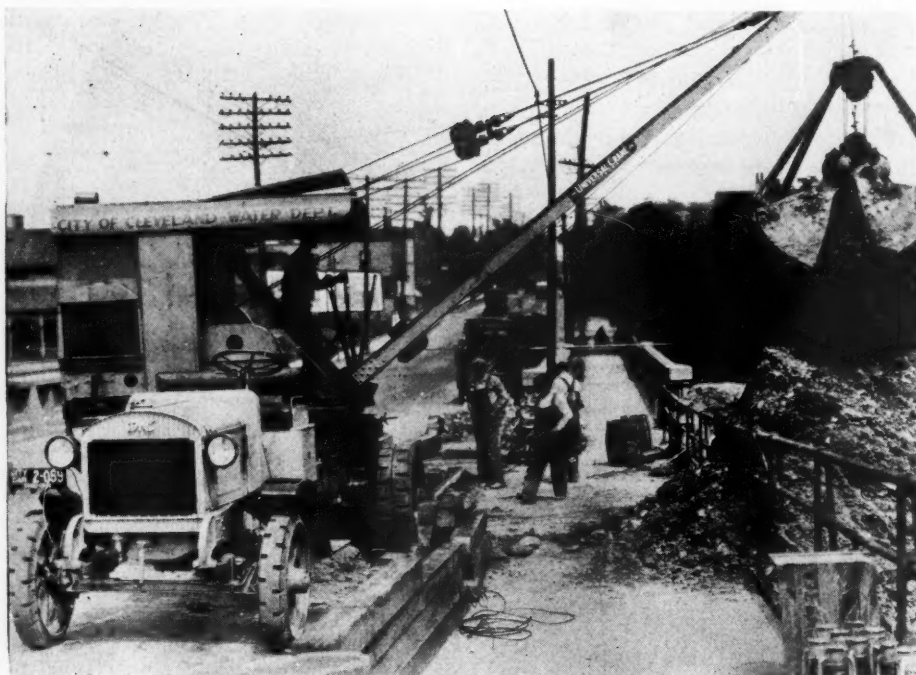
The Latest Model Elgin Pick-Up Sweeper



This Machine Cleans Out Catch Basins. It Can Also be Used for Sprinkling, Flushing, Etc.

The Autocar Sales & Service Co. will exhibit a model 27H 4-cylinder 2 to 3-ton chassis with Autocar standard rotary hoist and steel shell body designed especially for road construction work. This chassis is 114 in. wheelbase on pneumatic tires 38x7 front and 38x9 rear. The body is 3 yard water level capacity with one division board suitable for hauling two 5-bag batches of road material.

The Autocar 4-cylinder engine in section, also a small working model of the Autocar road truck complete in detail scaled down to 1/4 size will be featured. There will be a working model showing the oiling system used exclusively by Autocar for motor lubrication and a transmission assembly with all inside working parts exposed to view.



GMC Tractor Truck on Which is Mounted a Universal Crane

The crane is operated by a separate power plant. Many applications of this type will be seen at the Road Show

Tinius Olsen Testing Machine Co. will demonstrate at the show some of the very latest cement, concrete and road material testing machines used at the present time. The exhibit and demonstrations will include the new Olsen-Boyd automatic cement tester, also the new Olsen-Boyd automatic compression testing machine, whereby a load may be applied in compression automatically at a uniform rate and the machine is not touched from the time the specimen is placed in same and initial load applied until the specimen is ruptured.

The new Olsen 200,000 lbs. capacity compression testing machine will be demonstrated, which is of sufficient size to take in either the 6 in. cube or 6 in. x 12 in. cylinder, or 8 in. x 16 in. cylinder, or many of the paving and building blocks that are used today.

Pittsburgh Testing Laboratory will exhibit a portable laboratory for the control testing of bituminous road building materials in the field; and an Attractoscope projecting photographs of various road building jobs this company has inspected.

The Highland Body Mfg. Co. will exhibit two of the Highland Model D cabs.

This cab is particularly well adapted for service on contractors' trucks as it is a universal unit, giving the driver easy access to the seat from either side and making it possible for him to convert it from a wide open unit to one partly or completely closed without leaving his seat or stopping his truck.

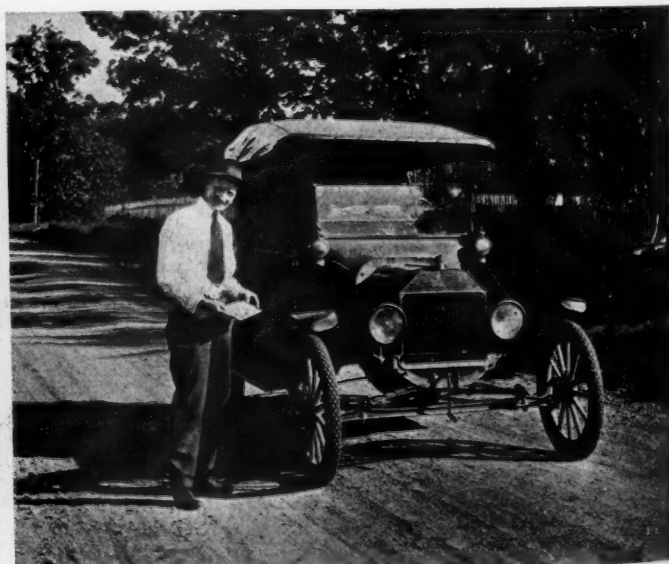
The doors are arm high and roll back beside the driver's seat, where they automatically lock, out of sight and out of the way. The windows are independent of the doors. They slide and they fold as they open and when not required are locked into the rear corner. The rear window drops into a pocket back of the lazy back, which is on springs. The cushions are the deep, spring type in pairs. The windshield is the clear vision, full ventilating type, both sash swinging on heavy hinges.

Electric Wheel Company will show a four-cylinder kerosene motor, rubber tired spring mounted trailers and rubber tired wheels for the Fordson tractor for industrial and construction work.

The Gray Tractor Company will exhibit the latest model Gray Giant Road Maintainer.

American Bosch Magneto Corp. will show a complete line of Bosch magnetos, also the Bosch magneto and Governor attachment for Fordsons, the Bosch type GT Governor for Fordsons and the Bosch magneto fitting for Ford trucks. The GT Governor will be shown at the show for the first time.

Note the Happy Smile That Comes With the Good Road



YEARLY STATE APPROPRIATIONS for Road Maintenance

CONTINUE TO CLIMB

A SURVEY of the phenomenal growth of our highways from the standpoints of mileage, texture and strategic lay-outs never fails to excite interest. This interest, whether prompted because of the firm affinity existing between good roads and the successful continuance of various commercial enterprises, or simply curiosity, indicates the trend of American thought today. Everybody knows something about roads, at least enough to view the subject broad-mindedly. The education of an intelligent people bringing home the realization of the utility of good roads is responsible for a single amalgamated frame of thought—national recognition of the benefits of good roads. It is just this national acceptance that has enabled our various legislative bodies to execute their stupendous road programs. And so the good work follows through into 1925, fostered and encouraged by an enthusiastic populace.

To determine as near as possible what 1925 has in store for us the highway departments of the 48 states have been solicited by this office for information concerning their contemplated program for that year. In this questionnaire they have been asked as to the mileage

planned aside from Federal Aid, approximate expenditures for maintenance, means pursued for obtaining the money required to cover maintenance costs, whether contractors in the state would be in the market for new or replacement equipment, and what capacity motor truck seemed to be preferred in road work?

An interesting disclosure is the money being spent for maintenance. The amount of the 19 states answering this question totals the sum of \$61,833,294, with Pennsylvania leading with an appropriation of \$24,000,000. And this outlay is for maintenance alone. No estimates are given as to the cost of the new roads to be constructed. But a general idea as to the amount of money being spent by the nation may be had from the 9835 estimated mileage of 16 states.

A clear conception of the national program and attitude can be portrayed in no better way than by actually glancing through the correspondence received from the various heads of the highway departments. For that reason we have excerpted relative passages from their letters which follow:

STATE OF CONNECTICUT

Since 1915 the maintenance of trunk line roads has been financed by automobile registrations. The law passed by the Legislature of 1923 places the cost of the maintenance of state aid roads entirely on the state. Hence, appropriations are not made. The amount expended for maintenance during the year ending June 30, 1924, was as follows: Reconstruction, \$3,299,752.92; ordinary repairs and equipment, \$3,198,294.70.—C. G. Nichols, Chief Clerk.

STATE OF ALABAMA

Construction for 1925 includes 630 miles of roads to be completed and 425 miles of new roads. All maintenance costs are discharged through auto license revenues. It is not probable that the contractors in this state will need an exceptional amount of new equipment. Ford trucks and tractors seem to be used more than any other type of motor vehicle on road construction. The state now has under construction approximately twelve million dollars of roads and bridges and will have about the same amount next year, including the carry over from 1924.—L. M. Dinsmore, Office Engineer.

STATE OF WASHINGTON

Including Federal aid projects the total mileage contemplated for 1925 and 1926 is approximately 100 miles of concrete and 600 miles of gravel or crushed rock surfacing. The state is expending approximately \$1,500,000 per year for the maintenance of primary state highways. Three yard trucks are preferred. Two principal highway constructions planned for next year—the steel bridge and viaduct over the Puyallup River on State Road No. 1, East of Tacoma City limits and three steel bridges on State Road No. 1 between Everett and Marysville. The total cost of these structures will be approximately \$2,000,000.—James Allen, State Highway Engineer.

STATE OF NEW HAMPSHIRE

Expects to build approximately 100 miles of new roads next year, aside from the Federal Aid projects which will total approximately 50 miles. No special appropri-

ation for maintenance. Our budget for maintenance is set up from motor vehicle fees and gasoline road toll. The following approximate amount will be spent on maintenance during 1925: Trunk Line maintenance, state, \$600,000; towns, \$360,000; state aid maintenance, state, \$275,000; towns, \$200,000; state roads, state, \$100,000. The State of New Hampshire has about 26 five ton trucks and 20 one and one-half ton trucks.—F. E. Everett, Commissioner.

MISSOURI STATE HIGHWAY COMMISSION

Anticipate an expenditure of \$23,000,000 for 1925 road work. This will cover approximately 1,000 miles of hard surfaced and 800 miles of graded roads together with small bridges and culverts. Expects to receive an appropriation of \$4,000,000 for maintenance through the action of the next Legislature to cover the following two years. This is an increase of maintenance expenditure over the two past years. The \$5,000,000 increase is Missouri's program is basis for the conclusion that road contractors of that state will purchase considerable equipment during 1925. Contractors favor lighter weight trucks. The 1½-ton truck is most frequently used.—M. S. Murray, Acting Chief Engineer.

STATE OF NEBRASKA

Contemplated 1925 program uncertain until the Legislature convenes. No funds are available at the present time. Highways are maintained through revenues obtained from all motor license fees. Seventy-five per cent of this income is given over to highway maintenance exclusively. The state spent approximately \$1,400,000 on State roads and \$1,800,000 on county roads for maintenance in 1923. Two and three ton trucks are preferred.—Roy L. Cochran, State Engineer.

STATE OF COLORADO

From 100 to 200 miles apart from Federal Aid is contemplated for 1925. Special appropriations are made for the maintenance of road. About \$1,500,000 are spent a year for road upkeep.

OREGON HIGHWAY COMMISSION

1925 program not scheduled yet. Approximately \$1,000,000 is used for maintenance. The five ton truck is used more than any other one size.—Wm. Duby, Chairman, State Highway Commission.

MICHIGAN HIGHWAY DEPARTMENT

Approximately 500 miles of pavement and 200 miles of gravel roads are contemplated for 1925. This program hinges on the coming state legislature providing a means to finance future road construction, and the totals given include Federal aid mileage. These figures apply only to state road construction. No information on hand as to what the counties of the state plan. Approximately \$3,000,000 is expended for the maintenance of the state road system which embraces about sixty-five hundred miles of road. Demand for road building machinery in Michigan for 1925 will equal the demand for 1924. Three ton trucks seem to be preferred.—E. J. Vaughan, Director of Traffic and Service.

STATE OF OHIO

Expects to build approximately 400 miles of road apart from Federal aid projects in 1925. There will be completed approximately six or seven hundred miles. Maintenance costs are defrayed from large sums of money obtained from automobile license registration. We expect to receive approximately \$5,000,000 for 1925 for maintenance. The state has averaged about \$4,000,000 maintenance expenditures on roads per year. The tendency among contractors is to use lighter than five ton trucks, most popular capacity being used is ranging from two and a half tons to three and a half tons with a general tendency toward a one ton truck.—Earl V. Murray, Statistical Dept.

NORTH DAKOTA COMMISSION

Approximately \$3,000,000 is spent a year for maintenance. The most common type of truck used by the contractor has a capacity of about two cu. yds.—C. A. Myhere, Asst. Chief Engineer.

MINNESOTA HIGHWAY DEPARTMENT

At least forty per cent of our motor vehicle tax receipts are used for maintenance purposes and during the current year, we have used approximately \$3,500,000 for maintenance on Trunk Highways. This will represent a fair annual average. Our preference in motor trucks is for those having a capacity under three tons.—W. F. Rosenwald, Maintenance Engineer.

COMMONWEALTH OF PENNSYLVANIA

Hopes to complete 1000 miles of durable roadway. Plans are being made to place an exceedingly large mileage under contract prior to April 1. Pennsylvania receipts from the registration of motor vehicles, drivers' licenses, etc., are available to the Highway Department for maintenance. During the present year the Department spent approximately \$24,000,000 for maintenance, reconstruction and replacement of state highways. This is aside from the money spent for new road construction. The grand total approximates \$50,000,000. Doubtless the contractors who will operate in Pennsylvania next year will require much new equipment, but on that point the Department has no specific information.—M. H. James, Publicity Director.

STATE OF ILLINOIS

Expect to build approximately 1200 miles of paved roads during 1925. For the biennium ending July 1, 1925, the Legislature appropriated \$3,000,000 for maintenance purpose, the appropriation effective from July 1, 1923. Increased mileage will increase next appropriation. Contractors working on state road work, it is believed, will not need a large amount of equipment during the coming year. Two ton trucks are preference.—V. L. Glover, Road Engineer.

SOUTH DAKOTA COMMISSION

For the 1925 program 150 miles of grading is planned for construction with state funds and 350 miles of grading and gravel surfacing planned for construction with Federal Aid Funds. Approximately \$300,000.00 per year is expended for maintenance. We believe that two ton motor trucks are generally preferred.—J. A. Bohennan, Office Engineer.

VIRGINIA STATE COMMISSION

During 1925 in the neighborhood of 600 miles of new road will be completed. We do not separate our Federal aid but it is used in conjunction with state funds. The Federal Aid System consists of about 3500 miles of roads over various sections of the highways, which consists of about 4600 miles of road, and we can expend Federal aid on any portion of the 3500 miles, leaving only about 1100 miles on which Federal aid is not applicable. Maintenance for state highways is provided from the automobile license fee. The state spends about \$3,750,000 annually for maintenance, which is sufficient. During 1925 I do not believe the contractors will need a great deal of new equipment. The capacity of motor trucks preferred is three ton.—H. G. Shirley, Chairman.

STATE OF WEST VIRGINIA

Approximately 360 miles of partially completed contracts will be completed in 1925, exclusive of Federal aid contracts. Our additional construction program for 1925 will depend upon the action of our State Legislature, which meets in January. In case the Legislature authorizes the sale of \$20,000,000 in road bonds, which is anticipated, that sum will be placed under contract as promptly as possible. Our maintenance money comes out of the receipts from the automobile license payments and the gasoline tax. We are spending for maintenance approximately \$800,000.00 a year. Our ex-

perience shows that the lighter trucks—one and two ton—are preferred by the contractors doing work in this state. In our judgment there will be a considerable market in this state next year for new equipment, provided the \$20,000,000 becomes available for construction.—A. J. Mills.

WISCONSIN HIGHWAY COMMISSION

In all probability about 1000 miles of gravel roads and somewhere in the neighborhood of 100 miles of concrete will be built in 1925. In addition to the foregoing from 1000 to 1500 miles of road will be improved. No special appropriations for maintenance have been made by the state. The state and counties expend about \$5,000,000 annually for maintenance. We do not believe that the contractors in this state will need much new equipment next year. Our contractors use all classes of trucks but prefer sizes ranging from three ton to five ton capacity.—M. W. Torkelson, Engineer-Secretary.

NEW MEXICO HIGHWAY DEPARTMENT

The 1925 program will probably cover the construction of approximately 250 miles of inexpensive roadway. The state's total expenditures for maintenance will be about \$750,000 during 1925. Contractors in this state have purchased heavily of equipment during the past two years, during which time the state has carried out a construction program involving an expenditure of about \$5,000,000. The construction program for 1925 will not exceed \$2,000,000. The light truck is more in favor at present than the heavier unit.—James A. French, State Highway Engineer.

STATE OF NEW JERSEY

Although not definitely stated, it is expected that approximately 65 miles of roads will be built in 1925. An appropriation is made each year for maintenance from the receipts of motor vehicle fees, licenses, etc. It averages about \$2,000,000. The State of New Jersey is contemplating several projects which it terms as major projects, among them being the approach to the Delaware River Bridge at Camden and the approach to the Hudson River Vehicular Tunnel at Jersey City.—A. Lee Grover, Secretary.

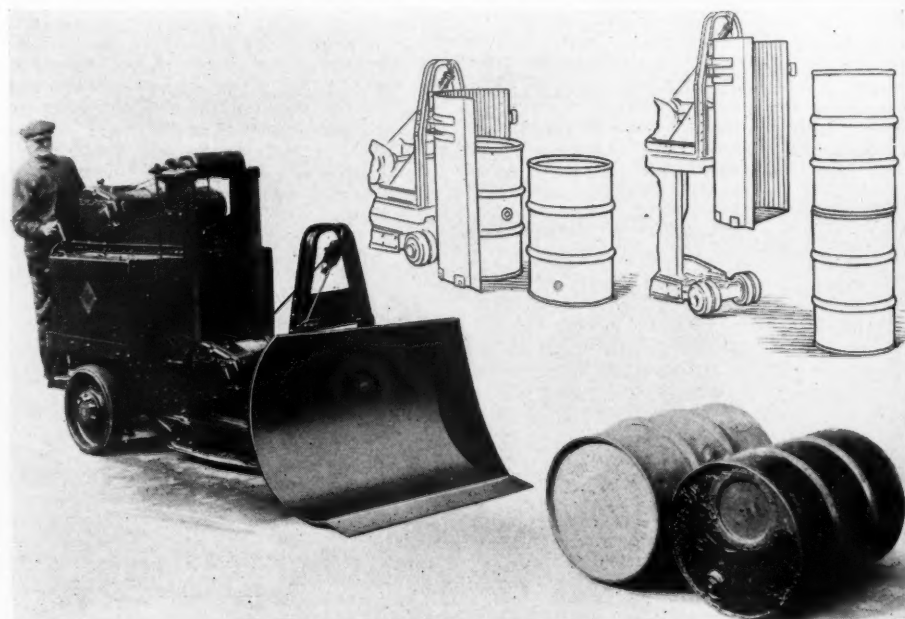
COMMONWEALTH OF MASSACHUSETTS

Appropriations for 1925 not available until March. This state has built during 1924 approximately 200 miles of highway—of which 55 miles was built under Federal aid—and it is probable that the lengths in 1925 will be approximately the same. During 1924 the state has expended approximately \$1,250,000 for ordinary maintenance of state highways and it is probable that the same amount will be required next year. Capacity of trucks used during 1924 varied from two to five ton capacity. No distinct capacity class is pre-eminent.—William F. Williams, Commissioner.

STATE OF TENNESSEE

During 1925 we expect our program to include approximately 600 miles of new construction. Funds are obtained through appropriation. Although only \$1,250,000 were expended on maintenance in 1924, our yearly estimate will approximate \$2,500,000. There seems to be an inclination to the smaller capacity trucks.

The Starrett Book for Motor Machinists and Auto Repairmen is now off press. It forms Volume III of the Starrett Books, the two other volumes being the Starrett Book for Machinists' Apprentices and the Starrett Data Book for Machinists. The present volume consists of over 200 pages 4½ x 7 in. attractively bound in artificial leather and into it has been gathered all the information and data which an automobile repairman would ever have occasion to need. Constructions, reasons and uses are given of measuring tools, micrometers, files, hack saws, reamers, drills and a variety of other tools used in automobile repairing. A great deal of tabular material is included in the book, including drill speeds, screw threads, tap drills, thread standards, keyways, grinding wheels, gages, etc. The book is copiously illustrated with line drawings, diagrams and sections. Considerable space is given to the subject of screw threads with complete data on all standards. Like the other Starrett books, the present volume is sold at 75 cents a copy.



Ingenious Automatic Electric Elevator Stacking Tractor Developed by Elwell-Parker Electric Co., Cleveland, Ohio.

The unit is ideal for transporting and stacking heavy rectangular and cylindrical materials of a bulky nature. It picks up its load in any position and stacks either vertical or horizontal. The elevator raises the lower end of the load up to an elevated position of six feet. As may be noted, the cradle can be revolved to any position. The outfit conserves time and labor and saves much valuable storage space.

The Effect of Good Roads on Agriculture

By ALBERT G. METZ

ONE often hears the expression that "agriculture is the back-bone of the nation," which statement might be amplified by the phrase "and roads are its arteries." The average individual does not realize that farming is the most essential business of any country. In fact the wealth and prosperity of a country is usually measured by the prosperity and welfare of its farmers. But the best managed farm that one could possibly picture would be of little use to a community if it was impossible to transport the products of that farm to a marketing center or to a railroad station so that said products could be shipped to other communities. Years ago when our transportation facilities were not as swift and when communities were dependent on whatever food they raised in their own localities, the question of roads was not of such importance to the farmer as it is today.

Not so very long ago the farmer was in a bad predicament because farm labor had migrated to the cities in great numbers. But after the war when munition factories and many of the big plants building war materials in the metropolitan centers shut down, many of the farm hands who came to the cities returned to their former occupation.

Having advanced considerably in the compensation scale the farm hand was reluctant to go back to the old standard, he wanted more money and he is getting more today. The farmer has experienced more difficulty in recent years to secure responsible and reasonably-priced labor than ever before in the history of farming. But neither the farm hand nor the farmer is content to go backward in the standard of living.

There was a time when the mud road was taken as a matter of fact by the farmer but his compensation was com-

parable to his surroundings. But those days are gone. The farmer is no longer satisfied with the mud road. No matter where one travels in this country among the farming communities—the desire of the farmer is for better roads. The automobile is responsible for that.

However, the dirt road has not passed

out of the picture to the extent that the city dealer imagines. We are still a long way from the point when we can say that American farms are located on improved highways. It will take many years to reach that point. But every year more and more miles of good roads are being added to our highway system, all of which

is of distinct benefit to the nation because it reduces the food bill of the average householder and which, incidentally, is his biggest yearly item of expense.

Now the foregoing may be trite information to many of our readers. But the point we want to bring out is simply this, that the sooner the farms of this country are connected with good roads, that are passable in all kinds of weather, the sooner the cost of living can be reduced.

In every section of the country one can get reports showing that farmers are allowing crops to rot in the ground, acres of fruit-bearing trees are left unpicked,

or fruit that has been picked is not shipped at the last moment. Why?

Because the farmer has found that the transportation expenses wipe out practically all profit. Is the road responsible for this? Yes, in most cases. If that farmer was located in a community where good roads lead from his farm to a market or big city he could sell his stuff. He would load up his truck and get his produce to market in good condition and he could get his price. The cost of transportation is just as vital to the farmer as it is to the city merchant.

Many farms have been abandoned in the past for no other reason except that the farm was isolated. A mud road between it and the nearest marketing center or railroad station was usually the cause. Why is it that just as soon as a good road passes the farmer's gate, the value of his farm land jumps considerably? Because that farmer knows the value of



When the Farmer Has Roads Like This to Contend With His Hauling Costs Become Prohibitive

The Little Red School House

"In checking over the notes made by our road survey cars, which cover every section of the country, we find that four-fifths of the little one-room school houses have no provision for heating or ventilation except old unjacketed stoves and rickety windows," says Charles P. Root, manager of the touring bureau of the Chicago Motor Club. "Most of these buildings are poorly lighted, and the seating facilities are also poor."

"The moral," points out Mr. Root, "is simply this: Build good roads and we shall be able to build larger and better schools, for with the existence of hard roads children can be transported by bus from fifteen to eighteen miles to a large consolidated school."

the road as a means of getting his farm products to the market quickly and at less expense. He knows that he can make more profit. His time is conserved. He can do more work on the farm and spend less time on the road. He can save a certain amount of the pay that he must otherwise spend in hired labor.

If farmers in the country cannot get to town, because the roads are impassable, then the country stores do not do business. When country stores do a bad business then country banks do a bad business and bad business in country banks is immediately reflected in the financial centers where bank clearings fall off. Bank clearings fall off and the city merchant finds his business dull because the country merchant a few hundred miles away has found business dull because of bad roads.

The "usual seasonal conditions" which commercial agencies speak of as affecting "bank clearings" means simply mud roads as against hard surfaced roads passable throughout year.

The United States Bureau of Public Roads has estimated that more than \$200,000,000 are paid each year in tribute to bad roads, which will be saved when the farmer is supplied with the proper type of road. In California a few years ago, tests made under the auspices of the California State Automobile Association, showed that the farmer can haul only one-eighth of the weight on mud roads as compared with concrete roads. This means that his marketing costs are increased eight times and his time is decreased accordingly.

In the Farmer's Bulletin, No. 1201, issued by the United States Dept. of Agriculture, in which a survey was made of the experience of 753 farmers in the Eastern States, some interesting facts are disclosed which show exactly how the road affects the farmer.

For instance, over 90 per cent of the farmers are agreed that the motor truck

is of greatest advantage to them as a saver of "time." The saving of time effected by the truck "not only enables the owner to put in more time at work on the farm, but often enables him to go to a better market, or to get perishable produce to market in a better condition than would be possible with horses and wagon."

But read what the farmers say in answer

trucks cannot be used. The men who live on unimproved roads have the greatest handicap in this respect, but even the best roads in this region may be impassable for trucks because of snow at certain times of the year."

Which all goes to show that the road is of dominating importance to the farmer, and why every dealer in motor trucks should do all he can to boost the good roads movement in his community, whether he is located in the farm district or in the city.

The more good roads that are available the easier it becomes to interest the farmer in motor trucks.

No matter where motor truck transportation is employed the character of the road traveled governs to a great extent the cost of operation. Many owners who have been forced to travel poor roads find their cost of operation decreased considerably after the old road has been improved.

All sorts of statistics are available to prove the value of the good roads to agriculture, but it is not our purpose to go

into this detail here. The message we want to leave in your mind is simply this: That no development in this country is of greater importance to the motor truck dealer and manufacturer than the continuance of the good roads program. More roads of the improved type will make cost of transportation cheaper.

The good road will increase the profit of the farmer. It will permit the hauling of produce to market which is now allowed to rot. It is one of the most practical plans for reducing the cost of living. It promotes a better understanding between neighboring communities. It is a real sales help to the commercial car industry. It is up to you to be a booster!

If the roads located in your community are not what they should be, get together with your fellow dealers and organize a Good Roads Boosters' Club. All benefit.



The Good Road is a Time Saver for the Farmer

Time is of just as much importance to the farmer as it is to any business man. The farmer will buy trucks if he has good roads to run them on

to the question, "What is the principal disadvantage of the truck?" The following paragraph is quoted verbatim:

"Poor Roads.—This was given as the principal disadvantage by 59 per cent of those who answered this question. A large percentage of the reports stated that there is some time during the year when the roads are in such condition that motor

Did You Ever Stop to Think

By E. R. WAITE, Secretary Shawnee, Oklahoma, Board of Commerce

THAT in order to facilitate transportation, more attention should be paid to good roads.

THAT good roads and the motor truck will solve many of the transportation problems of today.

THAT most short hauls can be made by motor trucks.

THAT they will make local freight congestion a thing of the past.

THAT they solve the problems of making quick deliveries into local territory by the jobber and manufacturer.

THAT it will bring the market closer to the small town merchant.

THAT many of them lose business by not being able to get quick delivery of goods ordered from nearby wholesalers.

THAT they will bring the market closer to the farmer.

THAT today most farmers are dependent on the roads to get their products of the farm to the market.

THAT when the markets are good the roads are often bad and he can't get to market and get the advantage of higher prices.

THAT when the markets are bad the roads are often good and necessitate dumping his products on the market at a loss.

THAT good roads help every citizen.

EVERY CITIZEN SHOULD HELP THAT WHICH HELPS HIM. BOOST GOOD ROADS.

(Copyright, 1924, by E. R. Waite.)

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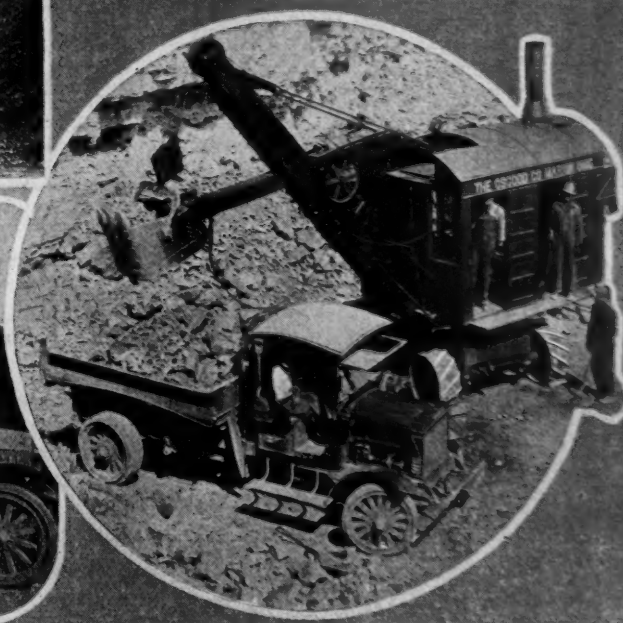
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The Motor Truck
is the King Pin
in Road Building
and
Maintenance



is a market for any good make of truck, provided the dealer sells what the truck will do, his organization and service and not the price.

As an example of such a dealer who has built from a small beginning we have the Bonnell Motor Car Company, Newark, N. J. Those familiar with the history of the man who launched this organization know that he did not begin with large capital. Neither has he been lucky, unless good business ability can be called luck, which it isn't.

Sales Increased Each Year

The company represents the Dodge and Graham line. Until the Dodge light truck and the Graham was brought out, the company built up its success around Dodge passenger cars. The same business principles were employed in handling the light trucks. Sales increased each year and in the face of keen competition. Because the truck is popularly priced does not mean that a Dodge salesman can go out and pick the orders. There

are several makes in price competition and the Dodge salesman has to sell. The organization also has to buy used trucks—and sell them.

There are no wonderful sales methods or stunts in the Bonnell organization. Nothing but sound business methods. Like many passenger car dealers who have made a success with trucks, Mr. Bonnell separated the truck department from the passenger car. The truck department is on Central Avenue, quite a distance from the main salesroom, and is in charge of a veteran truck dealer, George D. Thayer, M. E., who, until the time he assumed charge of the truck department, was in business for himself. Previous to taking over the sales end Mr. Thayer conducted the service department.

When the truck department was organized, the first step taken was to build up a real sales organization. Salesmen were not selected on a hit or miss basis. The day is past for this type in the truck industry. The men were carefully selected,

then trained in the policies of the company. Mr. Thayer believes that the salesman should be forceful but not too aggressive and should never be on the defensive when approaching the prospect.

Another characteristic required is physical activity, because the number of trucks each salesman is expected to sell to win compensation under the bonus plans, eliminates the late riser and short day worker. Mechanical knowledge of the product is desired but not entirely essential. Salesmen are not expected to argue with a prospect over the technicalities of design and material. They are, however, expected to sell transportation, the house is back of the truck and the service.

Training the Salesman

After a salesman has been selected he spends a week or more in school. The teachers are the executives and heads of the various departments. For example, one executive will teach the policies of the Dodge company. Another will handle the used-car subject and the head of the credit department will impart information and company policies on credits. In other words, the new salesman goes through a training school and is not released for field work until he has graduated. When he does take to the pavements he knows the policies of the organization and how to meet any situation that may develop. He will not waste his or any executive's time by seeking information.

The territory, which includes Newark, Essex and Union counties, is zoned and there are sub-divisions of certain zones. More than one salesman is assigned to some city zones. The salesman is expected to thoroughly canvass his territory. Leads are not supplied but aid is given in the form of advertising and circularization. It is the policy of the company to issue a series of promotional letters, etc., and as an example, in July 9,000 were sent out. Recently 4,000 pieces of Graham literature were mailed. There are follow-ups, of course.

The salesmen perform a certain amount of floor duty but it is said that the number of prospects who come in to buy is very small. "We have to go out and dig up sales," said Mr. Thayer. "We really ring door bells."

The salesmen are on a salary basis but an incentive is provided in the form of a bonus, based on volume of sales. It is awarded every three months. This form of compensation encourages the live wires and discourages the salesman without ambition.

The writer was permitted to examine the list of used trucks on hand, and the sales records for quite a period. The Dodge and Graham trucks are being sold in increasing volume and the mark set to shoot at next year is a big one.

No Trade-in Problem

There is no used or trade-in problem. The policy can be explained by the old saying, "Buy Right and Sell Right." The policy of the Bonnell organization when it comes to the trade-in is to say NO if the proposed trade-in cannot be bought at a price that will permit of reconditioning it, giving satisfactory service to the

(Continued on page 62)

| Amount Forwarded | | Time | Labor | Parts | Amount Forwarded | | Time | Labor | Parts |
|--|--|------|-------|-------|---|--|------|-------|-------|
| REAR AXLE | | | | | 1-2-3-4 | | 12½ | | |
| Remove and install for Overhaul | | 8 | 7 | | 1-2-3-4-5 | | 14 | | |
| Replace Axle Shaft | | 1½ | 1½ | | 1-2-3-4-5-6-6A complete | | 17½ | | |
| Replace Propeller Shaft | | 7 | 4½ | | 1-2-3-4-5-6-6A-7-7A complete | | 20½ | | |
| Replace Differential Pinions | | 7 | 4½ | | 1-2-3-4-5-6-6A-7-7A-8 complete | | 35 | | |
| Replace Differential Bearings | | 8 | 3½ | | Replace all Timing Gears | | 8 | | |
| Replace Ring Gear and Pinion | | 7 | 4½ | | Starter Chain, tighten | | 1 | | |
| Replace Propeller Shaft Bearings | | 8 | 4½ | | Fan Bushings, replace | | 1½ | | |
| FUEL SYSTEM | | Time | | | Gland Nuts, repack | | 1 | | |
| Carburetor Overhaul | | 2 | | | Crankshaft, Remove and Install | | 10 | | |
| Vacuum Tank Overhaul | | 2 | | | Camshaft, Remove and Install | | 8½ | | |
| Gasoline Tank | | | | | CLUTCH | | | | |
| ENGINE | | | | | Remove and Install only | | 7 | | |
| 1. Clean and Paint | | 2 | | | Disas. Shaft | | | | |
| 2. Clean Carbon | | 1½ | | | Spring Throw-Out | | | | |
| 3. Grnd Valves | | 4 | | | ADD for EACH part installed | | 1 | | |
| 4. Take up Rod Bearings | | 6 | | | TRANSMISSION | | | | |
| 5. Take up Main Bearings | | 5 | | | Remove and Install only | | 6 | | |
| 6. Install 1 set (3) rings | | 5½ | | | Replace Main-Shaft & Sliding Gears, add | | 2 | | |
| 6A. For each Additional Set, add | | ¾ | | | Replace Counter-Shaft and Gears, add | | 2 | | |
| 7. Install 1 Piston Pin and 1 Bushing | | 5½ | | | UNIVERSAL JOINT | | | | |
| 7A. For each Additional Set, add | | ¾ | | | Remove and Install only | | 4 | | |
| 8. Rebores 4 Cyl. and Install Pistons, Rings, Piston Pins and Bushings | | 18 | | | Replace Bushings, add | | 1 | | |
| COMBINATION JOBS | | | | | TOOLS | | | | |
| 1-2-3 | | 6½ | | | Jack Pump | | | | |
| 4-5 | | 7½ | | | Pliers Sparkplug Wrench | | | | |
| 4-5-6-6A complete | | 12 | | | Hammer Rim Wrench | | | | |
| 6-6A-7-7A complete | | 11 | | | Grease Gun Crank | | | | |
| 4-5-6-6A-7-7A complete | | 15 | | | LUBRICATE Chassis and Units | | | | |
| Amount Forwarded | | | | | TOTAL | | | | |

Market Average \$ _____

Appraisers _____

Date of Appraisal _____

| | | |
|-----------------------------------|--|--|
| Labor | | |
| Parts | | |
| Total Labor and Parts | | |
| Selling Price (in good condition) | | |
| General and Selling Expense | | |
| Labor and Parts (as above) | | |
| Appraised Value | | |

Rear Side of the Appraisal Sheet. Statements Furnished by the Sheet Are Incontestable; It's Iron-Clad. There Are No Arguments. If the Buyer Expects Too Much He is Relinquished

Rather Sell Trucks Than Passenger Cars

Ford Dealer Finds More Profit and Less Grief in Commercial Jobs

By D. G. BAIRD

THE Millenbach Motor Sales Company, Ford dealer, Detroit, established only two years ago, claims to be selling more Ford trucks than any other dealer in the country. Its contract is for 20 trucks a month and, according to Edward J. Clothier, sales manager, it is exceeding this quota by five or ten jobs every month.

He Likes to Sell

"One very good reason for this young dealer's success in selling trucks," Mr. Clothier says, "is that he likes to sell them. He would rather sell a truck than a passenger car, although passenger car prospects are not passed up by any means. The point is though, that whereas the majority of Ford dealers concentrate on passenger cars and sell trucks more or less as a side line, Millenbach places trucks on at least an equal footing with passenger cars."

"There is more profit and less grief in selling trucks than there is in selling passenger cars," Mr. Clothier points out. "The average truck, with body and starter, sells for quite a bit more than the average passenger car, and special jobs often mount up to more than twice the price of the average passenger job. That means larger average sales and, of course, larger profits per sale."

"There is less grief in selling trucks because the truck user knows more about motor transportation than the car owner and is not so fussy about his equipment. The truck owner doesn't do his own driving, as a rule, and he appreciates the fact that his drivers may abuse his trucks. The result is, he doesn't insist on so much free service. We give them 100 cents worth for every dollar, understand, but the point is that they are satisfied with this, whereas the passenger car owner frequently wants 150 cents worth for his dollar."

Gets Real Co-operation From Owners

Liking the business is not quite all there is to selling trucks, however, and Millenbach Motor Sales has not built up such an enviable truck business without well di-

rected effort and much of it. The company employs ten to twelve salesmen, all of whom sell trucks and passenger cars, while the sales manager is an authority on trucks and a truck expert has recently been employed to devote all his time to this phase of the business.

"One thing I learned while I was selling," Mr. Clothier emphasizes, "was to make friends of the users and to give them such service that they would be glad to co-operate with me, and I have continually emphasized this in instructing our salesmen. I canvassed the first three months and thereafter I never had to canvass a day. I simply kept in touch with my customers and they kept me supplied with all the prospects I could handle. One owner turned \$3,000 worth of business to me in three weeks' time and wouldn't take so much as a cigar for it. Another bought three cars from me himself and turned three other sales my way in the course of a year."

Saved Them Money

"There was just one reason why they did this. I made it a point to give them service and save them money and they appreciated my efforts. I learned that comparatively few users know just what job is best suited for their business and I always ask my customers what they were going to use their trucks for. I would find a prospect who would say: 'Yes, I've been thinking of getting a new truck. I rather like the kind that so and so's using, the ones that have a nice closed body—panel jobs, I think he calls

them. Guess I'll take one of them.' Immediately I would ask what he was going to use the job for and very likely I would learn that a stake body was better suited for his purpose than a panel job and I would show him why. The result was that my customers soon began to tell their friends to buy their trucks from me, because I would sell them the job they ought to have."

Brings the Repeat Business

"I instruct our salesmen to use this method and they find it pays. Studying the needs of their customers, then selling them the jobs they should buy has enabled several of our salesmen to land some big accounts that bring them nice repeat business right along. Within the past year, we have been able to convert several fleet owners from a policy of trying light trucks of all kinds to standardizing on Ford jobs of one kind and we've saved them a lot of money. One of the poorest accounts we had a year ago is now one of our best, just because we succeeded in getting them to adopt a certain job as their standard equipment."

"That's why we have employed a truck expert to devote all his time to this work. I have so many other things to do that I can't give the truck users the attention we want them to have. This truck expert, in addition to helping the salesmen close, will compile data on operating costs for different lines of business, so that he will be able to tell a prospect just exactly how much per bottle it will cost him to deliver his milk, for example, how much per pound to deliver his meat, or how much less it will cost a huckster to use a Ford truck instead of his old horse and wagon."

Why Driver Instruction Pays

"Another thing we're doing is teaching drivers how to take care of their trucks. An outsider, you know, can't tell a group of employees a lot of things their employer can't very well tell them even if he knows as much as the outsider about the subject. We arrange with fleet owners to get their drivers together and give them some



Several Commercial Jobs Sold by Millenbach Motor Sales Company, Detroit, Standing in Front of the Company's Five-Story Sales and Service Building

straight talk about common abuses of trucks, how to get the best service, and so on. If the owner isn't holding his delivery costs down to the figure he should, we look into the matter and find out why for him, suggesting the proper changes in his methods or pointing out to his drivers just why they are not coming up to the standard. Such service saves the user money and he shows his appreciation by turning prospects our way."

Carries Bodies in Stock

Another service this company gives its customers is that of carrying bodies of all principal kinds right in stock and fitting up a job within 24 hours, if necessary. Several panel, screen, suburban, and open express bodies are kept on hand at all times, while stakes are ordered by the carload. Prospects can thus be brought right in and shown the different bodies, while having them on hand and putting them on saves considerable time over the usual practice of sending the jobs out to a body company. Plans are now under way for devoting one entire floor to commercial jobs, all fitted up with bodies of different types.

A sign painter is also employed by this dealer and, while he does not devote his entire time to this work, it is understood that he is subject to call at any time. In fact, Mr. Clothier claims, he spends over half his time on Millenbach jobs, doing the work right on the floor of the truck department. This, too, is helpful in selling and in holding goodwill, as the customer can see samples of the work done and can confer personally with the sign painter concerning the work to be done on his truck.

Being prepared to make up special jobs is still another help to this dealer in selling. Many prospects want something heavier than the standard one-ton Ford truck. Millenbach is prepared to give them a two-ton job by installing special extensions and tires. A semi-pneumatic tire on rear wheels, with pneumatic cords in front, is very popular and serviceable on such jobs. Some of these special jobs mount up to more than \$1,000, whereas the average Ford truck, with starter, costs less than \$600.

Employs Italian Salesman

In selling, this dealer has been very successful in analyzing his territory and sending certain salesmen after prospects of certain classes. Among the best prospects for Ford trucks, for example, are fruit dealers, hucksters, and expressmen, many of whom are Italians. Millenbach Motor Sales employs an Italian salesman who sells six to ten trucks a month regularly, chiefly because he speaks the language, knows the Italian viewpoint and the work to which the trucks are to be put, and can show his prospects where they will save money by buying Ford trucks. This man spends much of his time around a public market to which practically all prospects of this class come and near which are the wholesale fruit dealers, poultry dealers, and others, and keeping in close touch with them brings him an excellent business.

Junk dealers are rapidly replacing their horses and wagons with light trucks and, as many such dealers are Jewish, a Jewish salesman has recently been added to the sales force and is said to be doing well. This man also finds many prospects among his race engaged in other lines of business such as wholesale and retail groceries, fish markets, and cartage. He also sells passenger cars.

Other salesmen concentrate more or less on such classes as creameries, bottlers, and small retailers, particularly grocers.

It has been found, Mr. Clothier says, that grocers now prefer the regular ton truck rather than the Model T which formerly was quite popular with this class.

40% Involve Trade-ins

Thirty-five to forty per cent of Ford truck sales involve trade-ins, Mr. Clothier says, but his company takes only Fords in trade and it has little difficulty in disposing of its used trucks. There are always many hucksters, fruit peddlers, junk dealers and others, he points out, who are unable or unwilling to invest in new trucks, but who will take a used one and get a remarkable amount of service out of it. Where a prospect has a truck of some other make he insists on trading in, Millenbach will offer to take it on consignment and sell it for him, but will not accept it outright in part payment of a new Ford truck. Such an offer is sometimes accepted, but, as might be expected, is more often declined.

While the Millenbach Motor Sales Company has built up an exceptional truck business in a short time, Mr. Clothier

insists that it is just getting well started. There is a big field for the aggressive Ford dealer who will go after this business, he believes, and he expects to cultivate it even more thoroughly in the future than in the past.

Massachusetts Truck Registrations Fall Off in the Third Quarter

Registration figures issued by Motor Registrar Frank A. Goodwin shows that there was a falling off in the listing of commercial vehicles during the third quarter of the year compared to 1923. While July, August and September showed that the cars increased over the same months a year ago, and each successive month gained over its predecessor, yet August and September showed a loss for trucks. March, April and May fell behind earlier in the year, and when June and July showed gains it was believed that the others would increase also. However, in totals there is a gain for the nine months. Here are the comparative figures:

| | 1923 | 1924 | Increase over 1923 |
|-----------------|--------|--------|--------------------|
| January | 50,722 | 60,697 | 9,975 |
| February | 2,176 | 2,415 | 237 |
| March | 4,024 | 3,958 | a |
| April | 5,624 | 5,521 | b |
| May | 4,898 | 4,373 | c |
| June | 3,232 | 3,340 | 108 |
| July | 1,928 | 2,075 | 147 |
| August | 2,762 | 2,336 | d |
| September | 2,807 | 2,615 | e |
| Totals | 78,173 | 87,330 | 10,467 |



This Heil and Warner Combination Readily Conforms to the Weight Law

The Heil Co. has installed a number of dump bodies and Hydro hoists on Warner semi-trailers for use with different truck tractors. The body illustrated is 8-yd. capacity. Weight distribution over six wheels allows operation within the law's prescribed weight limits. Power to operate the hoist is transmitted from the engine through a fifth wheel attachment. The dumping angle is 45 degrees and the tail gate ground clearance is 4 ft. Sides are removable. Tail gate operating rods run and are protected under the extended run boards.



A SPEEDY TRUCK

500 New Dealers Appointed
In a Few Short Months

\$1095

WILLYS-KNIGHT MOTOR

Chassis f. o. b. Detroit

Live dealers appreciate the unusual opportunity for profit in the Federal-Knight franchise.

Applications are pouring in every day. Territory is being rapidly assigned. Sales are mounting. Enthusiasm is spreading everywhere.

For the Federal-Knight has no competition in the light delivery class. No competition in quality—no competition in price—no competition in performance—no compe-

tition in economy. This is the *only* motor truck on the market with the world-famous Willys-Knight motor. No valves to grind. No carbon-cleaning. 50% saving in upkeep.

Every light delivery truck user is a prospect. Every Federal-Knight owner is a booster. Every Federal-Knight dealer is a money-maker.

Valuable territory still open. Write TODAY for full particulars of the Federal-Knight franchise.

FEDERAL MOTOR TRUCK COMPANY

DETROIT, MICHIGAN

FEDERAL-KNIGHT

A SPEEDY BUSINESS TRUCK



EDITORIALS



Underestimating the Future

EDWARD N. HINES, Chairman of the Board of County Road Commissioners, Wayne County, Mich., in a recent address made the significant statement, "That regardless of the fact that one hundred foot rights of way have been acquired on some of the radial roads out of Detroit, and that many concrete roads have been constructed ranging from 40 feet to 70 feet between curbs, still as soon as such improvements are completed the roads become congested with traffic."

"All history of the past," says Mr. Hines, "shows that our failures have been due to underestimating the future rather than in overshooting the mark. Even though Wayne County started 15 years ago as pioneers in concrete road construction it still considers itself as pioneers."

All of which might be applied directly to the dealer who is planning to make the motor truck business, his business. Just the same as the highway builder is constantly trying to impress the public with the necessity of building roads for the future to take care of traffic ten years and twenty years hence, so the truck dealer should build his business on a solid foundation that bring greater rewards as the years go by.

For that reason the dealer should take an interest in the highway building activities in his community. No longer is it advisable to build highways of a definite width because a certain width has become standard in the community or because the taxpayers might save a little money. In the long run they pay more for putting down inadequate roads than they would have paid by doing the job right in the beginning. The community that expect to grow, should build the best and widest roads possible; even then it may underestimate the mark rather than overshoot it. The truck dealer who hopes to develop into a prosperous and reputable merchant should look upon the future with vision and a realization that just as the highways of our country become more perfected, so will highway transportation grow in proportion.

Displaying the Truck

AT this time of the year particularly the merchant in most every line of business takes advantage of all the window space at his disposal to display his wares. Since the automotive industry began its Christmas merchandising propaganda a few years ago, the car dealer and especially the accessory dealer have taken advantage of this holiday buying spirit to place more money into their cash registers.

However, we find very little effort being put forth by the truck dealer to take advantage of such seasonable opportunities to put their show windows in order. In fact the truck dealer as a rule does not make any attempt to display his product. The truck as a rule does not lend itself to display purposes, which is one of the reasons why the average truck show does not cause much of a furore among motor truck users. It is what the truck does that the user is interested in and not how pretty it looks in the show room.

However, that should not discourage the dealer from presenting his proposition as attractively as possible. We have seen plenty of show windows recently where the truck was so far removed from the front of the window that one would hardly realize that the establishment sold trucks. The truck could be effectively displayed in the show window by showing some portable loading device placing loads of bulky material onto the truck.

A truck could be shown lying partly on its side with the underneath structure shown to advantage. Lighting effects for night display could be worked out that would take away the drab somber appearance of the truck dealers show windows. In fact if the dealer would give this matter some serious thought he might create more interest in his show window than the passenger car dealer could ever hope to do. In other words, the dealer should take advantage of every opportunity to get his community talking about his establishment. A good window display is a great asset but it must contain more than a truck chassis covered with dust.

THE open season for resolutions will soon be with us. Of course, it's the easiest thing in the world to make resolutions—keeping them is another thing. Here's one we would like you to keep, namely, to write to us frequently, giving us your opinions and constructive criticisms. Let us know about the good things you are accomplishing so that we can pass them along to the other fellow. And now for a very Prosperous New Year!

News of the Trade

Seven Year Achievement of the Federal Aid Program

Half of Vast Mileage Has Been Borne by the Federal Treasury. \$65,094,000 Available in the Treasury for 1925

A total of 35,095 miles of highway have been constructed since the inauguration of the Federal Aid program, which is being administered by the U. S. Bureau of Public Roads. The progress report of the bureau, as of November 1, show that this number of miles have been built since 1917, at a total cost of \$595,000,000, approximately half of which has been borne by the Federal Government.

In addition to this mileage, which has been completed and paid for, there are now 19,227 miles under construction, on which a total of \$417,204,000 has been spent and an additional mileage of 1,481 miles, which has been approved for construction which will cost \$33,000,000. Texas, with a mileage of 1,572 miles, leads all other states in projects now under construction. Other states in the order named are: South Dakota, 1,084 miles; Alabama, 836 miles; Minnesota, 826 miles; Missouri, 795; and Iowa, 637 miles. Illinois, Indiana, New Jersey, Oregon and Wyoming are the only states

which have not approved the construction of highways during 1925 under the Federal Aid program. At the present time there is a sum of \$65,094,000 available in the Federal treasury for expenditure during 1925 on its highway construction program.

Auto Markets Rapidly Developing in Latin-America

Nine-Month Figures for 1924 Show Sales of 7,000 Trucks, a Record in This Direction; 1923 Figures Passed

In ordering 35,000 passenger cars and 7,000 trucks from the United States in the first nine months of this year, Latin-America has broken its own record as a purchaser of American motor vehicles, according to a report in the current issue of Commerce Reports by the Automotive Division of the Department of Commerce, based on a statement of Assistant Trade Commissioner Brin, Mexico City, and Latin-America Consular advices. In these nine months, exports from the United States have more than equaled those of the entire year of 1923 and have established a new record for future years to strive for.

Many Highway Contract Defalcations Cause Anxiety

Protective Measures Becoming More Necessary. Lack of Equipment, Finance and Knowledge is Responsible

Many highway executives have recently shown considerable anxiety because of the number of highway contractors who have defaulted their contracts. Unless something is done to prevent the increasing number of defaulted contracts, the State, contractor, bonding company and material men are all bound to be losers. Lack of finance, equipment and knowledge of the class of work undertaken are main reasons for many of their defaults.

Thomas H. MacDonald, Chief of the Bureau of Public Roads, holds to the belief that the bonding companies should make a more careful study of their risks before issuing contract bonds. Mr. MacDonald suggests that the best remedy, so far developed, is the practice of several States in requiring the contractor to have a certain balance, or some other definite financial arrangement, before the contract is awarded. This is sound business and would minimize the number of contracts defaulted.

COMING EVENTS

CONVENTIONS

American Road Builders Assn.—Convention and road show to be held January 6 to 9, 1925, at the Coliseum, Chicago. Chas. M. Upham, director, State Highway Commission, Raleigh, N. C.

Michigan Automotive Trade Assn.—18th annual convention to be held in Detroit, Mich., January 21, 1925. W. D. Edendurn, Mgr., Hotel Addison, Detroit.

Texas Automotive Dealers Assn.—Annual convention to be held in March, 1925, at Austin, Texas. W. A. Williams, Mgr., San Antonio.

SHOWS

Albany, N. Y., Feb 21 to 28, 1925—15th annual show to be held in the 10th Infantry Armory (42,000 sq. ft.), under the direction of the Albany Automobile Dealers Assn., Inc. Passenger cars, trucks and accessories. J. B. Wood, Treas., care of Chamber of Commerce.

Boston, Mass., March 7 to 14, 1925—23d annual show to be given under the auspices of the Boston Automobile Dealers Assn., Inc., at the Mechanics Bldg. (125,000 sq. ft.). Passenger cars, trucks, tractors and automotive equipment. Chester I. Campbell, Mgr., 329 Park Sq. Bldg.

Buffalo, N. Y., January 10 to 17, 1925—Buffalo Automobile Dealers Assn. Twenty-third annual passenger car, truck, tractor and accessory show will be held in the 174th Regiment Armory (55,000 sq. ft.) Carlton C. Proctor, show manager. Address, Room No. 1 Mezzanine floor, Hotel Statler.

Chicago, Ill., January 23 to 31, 1925—National automobile show to be held under the auspices of the National Automobile Chamber of Commerce, Coliseum and First Regiment Armory.

Cleveland, Ohio, January 17-24, 1925—Automobile Manufacturers and Dealers Assn. Twenty-third annual passenger car and truck show, Public Auditorium, Cleveland, Ohio. Herbert Buckman, manager.

Detroit, Mich., January 17 to 24, 1925—24th annual show to be held at Convention Hall, under the auspices of the Detroit Auto Dealers Assn. Passenger cars, trucks and automotive supplies. H. H. Shuart, Mgr.

Kansas City, Mo., February 7 to 14, 1925—18th annual automobile show under the auspices of the Kansas City Car Dealers Assn. will be held at the American Royal Bldg. (300,000 sq. ft.). Passenger cars, trucks, tractors, and automotive equipment. Geo. A. Bond, show mgr., Firestone Bldg., Kansas City.

Meadville, Pa., Jan. 1, 2 and 3, 1925—3rd annual show to be held in the Flaugh-Logan Bldg., (20,400 sq. ft.), under the direction of the Meadville Auto Dealers' Assn. Passenger cars, trucks, accessories and radio. Don A. Calder, Chairman of Show Committee.

Milwaukee, Wis., January 17-25, 1925—Automotive Dealers Assn. Seventeenth annual passenger car, truck and tractor show, Auditorium, Milwaukee, Wis. Bart J. Ruddle, manager.

Newark, N. J., January 10 to 17, 1925—18th annual automobile show to be held at the 113th Infantry Armory (30,000 sq. ft.) under the auspices of the Newark Automobile Dealers. Passenger cars, trucks and automotive equipment. Claude E. Holgate, Mgr., Chamber of Commerce Bldg.

Omaha, Neb., February 16 to 21, 1925—20th annual automobile show to be held at the Auditorium. Passenger cars, trucks and automotive equipment. A. B. Waugh, Mgr.

Portland, Ore., Jan. 31 to Feb. 7, 1925—17th annual show to be held in the Multnomah Block (110,000 sq. ft.), under the direction of the Automobile Dealers' Association of Portland, Ore., Inc. Passenger cars, truck, tractors, accessories and aeroplanes. Ralph J. Staehli, 16 Myler Bldg., 84 West Park Street.

San Bernardino, Cal., Feb. 19 to Mar. 1, 1925—The Fifteenth National Orange Show will be held in the National Orange Show Bldg., (45,000 sq. ft.) The show will include passenger cars, trucks, tractors, and ac-

cessories. R. H. Mack, show manager, with headquarters, 215 Chamber of Commerce Bldg.

San Francisco, Cal., February 21-28, 1925—Motor Car Dealers Assn. Ninth annual passenger car, truck and tractor show, Exposition Auditorium, San Francisco, Cal. G. A. Wahlgren, manager.

Saint Paul, Minn., January 31-February 7, 1925. Auto Trades Assn. Annual passenger car, truck and tractor show, Overland Bldg., Saint Paul, Minn. W. C. Wilmot, manager.

Scranton, Pa., January 29 to 31, 1925—17th annual commercial car show under the auspices of the Scranton Motor Trades Assn. will be held in the Armory. Trucks, tractors and automotive equipment. Hugh B. Andrews, show mgr., Board of Trade Bldg.

Syracuse, N. Y., February 2-7, 1925—Syracuse Automobile Dealers Assn., Inc. Seventeenth annual passenger car, truck and accessory show, State Armory, Syracuse, N. Y. C. H. Hayes, manager.

Washington, D. C., January 24 to 31, 1925—5th annual show of the Washington Automotive Trade Association to be held at Convention Hall. Passenger cars, trucks, accessories. Rudolph Jose, show mgr., 1138 Connecticut Ave.

N. A. D. A. MEETINGS

January 5, 1925—Convention in connection with a show at Hotel Commodore, New York City.

January 29 and 30, 1925—8th annual convention to be held at Hotel La Salle, Chicago. Lynn M. Shaw, Asst. Gen. Mgr., 329 N. Grand Ave., St. Louis, Mo.

S. A. E. MEETINGS

January 8, 1925—Annual Dinner to be held at New York City.

January 20 to 23, 1925—Annual Convention at Detroit, Mich.

January 21, 1925—Annual Carnival scheduled for Detroit, Mich.

Supreme Court Decides Ohio Horsepower Controversy

A. A. E. Horsepower Formula as a Basis for a Special Excise Privilege Tax on Motor Vehicles Held Constitutional

The Supreme Court recently upheld the constitutionality of the use of the S. A. E. horsepower formula as a basis for a special excise privilege tax on all classes of motor vehicles.

In 1919 the Ohio Legislature classified motor vehicles into (1) those of 25 h. p. and under, (2) from 25 to 35 h. p., and (3) over 35 h. p., establishing a flat rate of \$8, \$12 and \$20 respectively, with an additional 20 cents per hundred pounds of gross weight for commercial cars. This act was held constitutional by the Supreme Court in *Saviers vs. Smith*.

In 1923 the Legislature passed a motor transportation act thereby exacting an additional tax from commercial cars under the jurisdiction of the Public Utilities Commission. In order to increase the tax on all commercial cars, it amended the horsepower section by increasing the weight tax, and changed the division line between the second and third classes of commercial cars from 35 to 30 h. p. This divided the natural classification of average heavy-duty trucks directly in half, taxing those on one side of the line three times as much as those on the other, although the trucks were actually the same.

The Fisher Bros. Co., of Cleveland, in a case directed against Thad. H. Brown, Secretary of State, and prosecuted by The Ohio Motor Truck Club, of Cleveland, attacked the constitutionality of the entire registration act of 1919 applying to all motor vehicles, and also the constitutionality of the motor transportation act on the ground of usurpation of the home rule of municipalities, improper levy and distribution of taxes, etc.

In view of the horsepower having been held constitutional in *Saviers vs. Smith*, and of the natural inclination to prevent loss of revenue to the State, the Foltz Grocery & Baking Company, of Cincinnati directed an action also against Secretary of State Brown, prosecuted by The Ohio Automotive Trade Association, The Ohio Association of Commercial Haulers, The Ohio Contractors' Association and a local truck committee of Cincinnati, attacking the constitutionality only of the amendment of 1923 on the ground that the new classification thereby established, taxing one-half of the same class of trucks three times as much as the other half, was unreasonable, unfair and discriminatory. The success of this contention would have restored the former law of 1919 without denying the State just taxes for the repair of streets and highways. The Common Pleas Court upheld this contention, but the Court of Appeals did not agree, stating that it hesitated to hold the act unconstitutional in view of *Saviers vs. Smith* and indicating that the question was one for the Supreme Court.

The Supreme Court has now held against both the Foltz and Fisher cases

C. S. Mott Suggested for Cabinet

Charles S. Mott, vice-president of the General Motors Corp., is mentioned as a possible member of President Coolidge's Cabinet after March 4. Since Secretary Denby's retirement, Michigan has had no representation in the Cabinet, and it is felt that the State's industrial prestige should be recognized with a Cabinet appointment.

Mr. Mott is a Republican in politics, served three terms as mayor of Flint, Mich., and entered the gubernatorial race in 1920. In that campaign he made a remarkable showing, despite the fact that his name was entered only four weeks before the primaries were held. He is a veteran of the Spanish-American War, served as a major in the Quarter-master Corps during the World War and at present holds the rank of Colonel in the Ordnance Department.

in their entirety, indicating that the act is constitutional and that any remedy, because of certain alleged discrimination, lies with the Legislature.

S. E. D. Completes Electric Truck Field Survey

Association Reports That Business Men Generally Are Sold on the Economies of Electrics for City Deliveries

A field survey, undertaken to ascertain definite information regarding the use of electric trucks and the opportunities for accelerated increased sales, has just been completed by The Society for Electrical Development. Users and non-users of electric trucks, central station representatives, dealers and others in 35 cities, have been interviewed as a basis for making a report to the electric truck industry on this subject.

Raymond G. Zindle, Supervisor of Electric Truck Activities, reports that business men generally are sold on the economies of electric trucks for frequent-stop city deliveries and that increased sales will be commensurate with the extension of charging and service facilities.

In the final analysis the electric truck serves a definite transportation need. Intensive sales effort in industries and in cities where they are best suited will materially multiply the electric trucks now in use, within the next five years. In the main, motorization is the best means of deliveries—gas trucks and electric trucks where they are respectively most economical and efficient. The use of the horse is consistently dwindling, there being apparently few instances where he provides a cheaper mode of transportation.

That the electric truck industry is on the brink of definite sales expansion is further substantiated by the fact that more trucks were sold during the first 9 months of 1924 than during any previous entire year.

Dealer Classification Suggested by the N. T. D. A.

G. J. Berger Pleased Members in Attendance at the Fifth Annual Convention by His Definition of a Tire Dealer

George J. Berger, president of the association, surprised and pleased the members in attendance at the fifth annual convention of the National Tire Dealers' Association, at Akron, November 18, 19 and 20, by launching unequivocally into a concrete definition as to what constitutes a real tire dealer. The tire dealer members assembled there with the intention of doing all they could as an organization to make the retail tire business a better business, with more profit for the dealers and factories alike, and with greater satisfaction to the consumer, were unanimous in their approval of Mr. Berger's plan.

Mr. Berger not only defined one type of dealer, but added several more and outlined just what the factory-dealer relation should be in each case. No suggestion was made that any particular type of legitimate tire dealer be eliminated. But he did suggest what he considered a fair classification of the various tire merchants now in the trade.

The first class of dealer Mr. Berger designated as the type AA dealer. This dealer, he maintained, should be the one who represents one tire manufacturer 100 per cent, and he should receive 10 per cent better price from that manufacturer than is given to the regular preferred list of dealers. And so on down through the line of dealers classifying them according to their place. Type A dealer represents two tire manufacturers. Type B, three. Type C, gasoline filling stations, garages, hardware stores, etc.

To be recognized as a possible dealer in tires, Mr. Berger said he would be glad to see the factories put into effect a real examination of a man's fitness for the task. He thinks before taking on a new dealer the factory should know the man's financial rating.

Under the system he proposes, Mr. Berger pointed out that factories could cut down their overhead greatly both in sales and in other departments, even to the elimination of many of their present expensive branches. Monthly financial statements from dealers to factories, a thorough co-operation between dealers and factories, and a very definite clarifying of the present chaotic condition in the industry are definite results Mr. Berger pointed out might well result from the system he outlined.

Lower Price of Johnson Equalizers

The Johnson Equalizer Corp., New York, has announced a reduction in the price of Johnson Equalizers for Fords from \$25 to \$17.50 per set of four. The increased sales brought about by their association with the U. S. Light & Heat Corporation, now manufacturing and distributing Johnson Equalizers, has resulted in a decrease in the cost of production.

Philadelphia Aims for Two Dollar Registration Fees

Philadelphia Motor Truck Association Very Active in the Interest of Its Membership, Provides Informative Talks

Matters of vital importance to the Motor Truck and Automobile business in general were discussed by prominent authorities on these subjects at the monthly meeting of the Motor Truck Association of Philadelphia.

Benjamin G. Eynon, of the Pennsylvania State Highway Department, explained the operation of that department. Regarding headlights, he advised all owners to have lights adjusted at a service station and to get a receipt stating this has been done, which would be evidence to an officer that an effort has been made to comply with the law—even if the lights had gotten out of focus again.

W. Howard Metcalf, executive secretary of the Philadelphia Automobile Trade Association and formerly secretary of the Truck Association, gave an informative talk on "Automotive Legislative Subjects," and praised the association's excellent work in securing the passage of beneficial legislation and preventing the adoption of injurious laws. He said their legislative committee's work prevented the passage of the Williams Bill that would have added 20 per cent to the tax now paid for motor trucks.

Mr. Metcalf urged all automotive bodies, trucks, passenger car and accessories combine in their efforts to protect their interests. One aim he urged for was a reduction in the registration fees for all vehicles to \$2 and \$3, except for buses. He called attention to the benefits of the Highway Department taking over the construction and maintenance of nearly every highway formerly controlled by boroughs. This increased responsibility of that department, he said, should be met by giving an increased portion of motor license fees to the Highway Department and suggested allowing them one and one-half cents of the two cent gasoline tax—returning the remaining one-half cent to the county where collected. He further stated that he believed a tax from \$2 to \$20, instead of as high as \$100 to \$150 would yield enough to the state, the continuation of the two cent gas tax being sufficient to raise the needed funds.

Mr. Frederick H. Williams, president of the association, who presided, announced the election of the following officers for

1925: Buell G. Miller, elected unanimously by acclamation for president, and the following directors: Division No. 1, Harry Rusk; Division No. 2, Edward M. Bird; Division No. 3, Colonel F. A. Warner; Division No. 4, W. Ross Walton. The following former directors' terms hold over: Division No. 1, F. A. Wills, Supplee-Wills Jones Co.; Division No. 2, J. G. Whinney, J. G. & M. H. Whinney; Division No. 3, W. A. Manwaring, Manwaring & Goodman; Division No. 4, Thomas K. Quirk, H. Kaiser & Co.

American Body Corp. Working on Detroit Buses

American Motor Body Corp. is manufacturing 36 double-deck, six-wheel buses for the Detroit Motor Bus Co., all of which will be in operation on Detroit routes before the end of the year. The body corporation is assembling the chassis for the major part of the fleet, the first coming direct from the Six Wheel Co., of Philadelphia, whose design is followed in the manufacture. All body work will be done here, the operating company doing the final work in its own shops.

The American Motor Body Corp. of this city and the Six Wheel Corp. are closely connected in a financial way. Both are included in the group of companies in which Schwab interests dominate. Up to this time the body corporation has been an exclusive manufacturer of passenger car bodies. Part of the plant, however, is now understood to be devoted to bus building for business in the central west.

Continental Shows Big Increase

With the closing of the fiscal year of the Continental Motors Corporation, it is reported the company will show an increase in net profits of approximately 20 per cent over last year.

W. R. Angell, vice-president of the company, when asked regarding the year's business said, "The Company will show a satisfactory increase in profits over last year, although our sales were slightly less. Our cash position is the best in our history. Through reductions in inventory and through various economies effected, we have been able to materially increase the ratio of our current assets to current liabilities. This ratio is now approximately 11 to 1. On the whole we have had a very satisfactory year."

Detroit Railways Coordinates Its Bus and Rail Service

All Railways to Terminate at the Outskirts. Passengers to be Brought to and From the City by Buses

Detroit United Railways, the interurban electric railway company serving many cities in the State and Ohio out of Detroit, has taken a further step toward co-ordinating motor bus and railway service, by terminating all its electric service at the outskirts of the city and using buses for bringing passengers to and from the main terminal.

Under the company's plans it will have a fleet of fifty buses operating between the terminal and the several points at the city limits where its own tracks stop. Formerly the interurban cars came all the way into the city, using the Detroit-owned tracks from the points where their own rights of way left off. Because of congestion due to the regular city trolley service and automobile traffic generally, the last or first stage of an interurban trip has been consequently slow and actual running time between cities much lengthened.

By using buses from the terminal the company plans to evade traffic to a large extent because of the greater elasticity of bus service. Sub-terminals are planned for three points at the city limits. All will be in service by Jan. 1.

As the greatest congestion in the city is over the streets normally used by interurban in serving these lines, it will be in position to greatly reduce its running time and at the same time will relieve to a large extent this congestion by keeping the heavy interurban cars out. The company will also save heavy rentals, which it is now paying the city for use of the tracks in reaching the downtown terminal.

Details of the complete operation of the plan are as yet incomplete other than as outlined. For the present it is offered as a means of overcoming city congestions during the day, but it may result in making it possible for the company to cease all Intra-Detroit operations of its rail cars. Eliminating the Detroit operation, running time between cities may be reduced to such an extent that increased schedules will be possible.

The buses are to be operated by a subsidiary of the Detroit United Railways, called the Peoples Coach Co. This subsidiary is already managing the operation of several inter-city bus lines which are being operated in conjunction with the regular interurban service. Under the plan as filed with the State Utilities Commission, this subsidiary would operate through buses to many cities of the State opening up territories which hitherto have had no passenger service of any kind.

The Gibb Instrument Co., of Bay City, Michigan, manufacturers of Electric Welding Machines and Electric Heating machines, has broken ground for a new modern plant.

U. S. Department of Commerce Production Figures
(Number of Machines)

| | Passenger Cars | | | Trucks | | |
|-----------------|----------------|----------|----------|--------|--------|---------|
| | 1922 | 1923 | 1924 | 1922 | 1923 | 1924 |
| January | 81,696 | 223,822 | *287,353 | 9,596 | 19,732 | 28,922 |
| February | 109,171 | 254,782 | *336,374 | 13,360 | 22,173 | 31,151 |
| March | 152,962 | 319,789 | *348,356 | 20,036 | 35,284 | *34,109 |
| April | 197,224 | 344,661 | *337,045 | 22,665 | 38,085 | *36,154 |
| May | 232,462 | 350,460 | 279,439 | 24,120 | 43,730 | 33,374 |
| June | 263,053 | *337,442 | 217,927 | 26,354 | 41,173 | 27,863 |
| July | 225,103 | *297,413 | 237,652 | 22,083 | 30,692 | 25,224 |
| August | 249,498 | *314,431 | 251,631 | 24,711 | 30,872 | 27,484 |
| September | 187,711 | *298,964 | 257,947 | 19,495 | 28,578 | 30,061 |
| October | 177,582 | *335,041 | 257,900 | 21,824 | 30,139 | 31,433 |
| November | 215,362 | *284,939 | ..... | 21,967 | 28,073 | ..... |
| December | 208,016 | *275,472 | ..... | 20,394 | 27,762 | ..... |

* Revised.

National Financing Companies Form an Association

Promote Sound Banking, Eliminate Criticism, Protection of Investment, General Education Among Objects

The National Association of Automobile Financing Companies was formed at a meeting in Pittsburgh of 30 executives of motor finance companies from all sections of the United States. By-laws were adopted and several other important matters were disposed of, but election of officers was left for a meeting to be held in Chicago on December 10.

The new organization has as its chief object, according to the by-laws, the unification of the interests concerned for education, correctional, legislative, productive and other purposes generally co-operative.

The combined organizations represented in the new association have a capital of \$29,110,000, and do an annual business of \$219,955,000. The adoption of the constitution and by-laws and a general discussion by the company executives present as to the most practicable plans for augmenting the activities of the association from time to time consumed the entire time of the session.

The movement looking to the launching of a national association among representatives of the industry was said to have been sponsored by the Motor Finance Credit Association of Pittsburgh; and the members of the organization committee of the new body, all active in the affairs of the local credit association, are A. A. Ross and E. Arch Cohen, of the Underwriters Syndicate of Pennsylvania; S. B. Evans and W. E. Biessecker.

In his opening address as temporary chairman of the meeting, Mr. Cohen, explained the aims and purposes of the association to be formed, and declared that "The activities shall be directed toward the promotion of sound banking practices, elimination of adverse criticism, protection of capital investment and to cement a fraternity with evidence of good will and fellowship."

The visiting members were the guests of the local committee at a dinner in the Union Club the same night. John Mellor was toastmaster, and addresses were made by Ralph H. Riddleberger, of New York; H. W. Ritter, of Cleveland; Jacob Gross, of New York; M. S. Cohn, of Indianapolis, and Mr. Ross.

Rutherford Predicts Large Sales Increase for 1925

W. O. Rutherford, Vice-President of the Goodrich Company and President of the Rubber Association of America, told tire dealers assembled in Akron for the fifth annual convention of the National Tire Dealers' Association that "Tire inventories, both manufacturers and dealers, are in better balance with sales requirements than at any time since the war."

He predicts a 20 per cent increase in unit volume of tire sales in 1925. A record tire consumption has already been

experienced this fall which has been evidenced by gasoline consumption figures. Another fact contributing to the betterment of general business conditions is that for the first time since 1920 the purchasing power of farm crops has become balanced with that of manufactured products.

Four hundred thousand miles of improved highways have had a vital bearing upon the nation's economic condition. They have contributed tremendously to the valuation of farm lands and farm products. Here, then, they have both directly and indirectly benefited tire sales as well as all other lines of business.

M. & A. M. A. Will Work for Trade Attendance at National Shows

The Motor & Accessory Manufacturers' Association, whose members will make up a large majority of the parts, accessory and shop equipment exhibitors in the New York and Chicago Automobile Shows next January, has completed plans for informing the entire industry regarding the two days of exclusive trade attendance with which each show will be opened. The promotion work will include publications, letters and stickers.

The M. & A. M. A. will distribute issues of Show News, the publication of the show department, telling the story of the trade days and of the parts and accessory exhibits and their contents. These issues of Show News will go to car, truck, body, parts, accessory and shop equipment manufacturers' executives, to general and specialty jobbers, to distributors and dealers in cars and trucks and to garagemen, accessory merchants and fleet owners.

The M. & A. M. A. correspondence stickers, which will be sent to the association's exhibitors will emphasize the trade days and the parts and accessory exhibits. Letters to interested men in the trade also will be sent out from the association direct and by individual exhibitors.

Meanwhile the National Automobile Chamber of Commerce, which conducts the shows, is planning to issue invitations and credentials for admission on the trade days to many thousand executives in the manufacturing, wholesaling, retailing and service divisions of the industry.

A good many individual manufacturers are arranging for circular matter of their own and the indications are that as the end of the year approaches, appreciation will be widespread throughout the trade of the unusual opportunity for inspection of the show exhibits to be afforded by the trade days arrangement.

Because of the new plan the New York show will open at 10 o'clock Friday morning, the day after New Year's, and only the trade will be admitted up to 7 o'clock Saturday evening, when the public attendance will begin and continue throughout the following week. The same plan will be followed at Chicago, where the show will be opened Friday morning, January 23.

The space in both shows has been oversold and interest already manifested throughout the trade, promises a record attendance and patronage of exhibits.

GMC Assist Employees to Become Home Owners

Participation in Investment and Saving Fund, Which Covers a Five Year Period Nets Employees \$3 for \$1 Paid in

Distribution of cash and new stock will be made by the General Motors Corporation and its subsidiaries to more than 8,200 employees shortly after the end of the year. The distribution has been provided under an investment plan of the corporation set up for the benefit of employees.

The cash amounts to \$1,036,000 and the stock consists of 23,000 shares, which at current market prices is worth \$1,364,000. This total of \$2,400,000 is the participation of the 8,200 employees in the savings and investment fund, class of 1919, into which they paid \$760,000 from their wages and have left with the corporation for a period of five years. The distribution, therefore, represents better than \$3 for \$1 paid into the fund by employees.

The savings fund was organized in 1919, and every year since then a new class has been formed, each maturing in five years. Employees are given the right to pay into each class as it is formed 10 per cent of their annual wages, not to exceed \$300.

On its part, the corporation agrees to put into an investment fund which is credited to the employees over a period of the subsequent five years, 50 cents for each dollar paid into the savings fund by the employee. Interest is compounded semi-annually at the rate of 6 per cent per annum. Employees have the right to withdraw their money at any time.

Under the present operation of the plan, the corporation insures employees a minimum return of better than 20 per cent a year over the five year period. At the present time, 55 per cent of those eligible are participating in the plan, the number being 28,000 employees located in the plants of the corporation and its subsidiaries operating in 38 states of this country and Canada.

The corporation assists its employees to become home-owners through the savings and investment fund by allowing them to borrow money from the savings fund to the extent of their deposits when such borrowed money is to be used to make payment for homes.

Preferred White Motor Securities Over-Subscribed

Over-subscriptions of \$1,000,000 to the offering of 7% preferred stock in the newly organized White Motor Securities Corporation has been announced by Walter C. White, president of the corporation and also of The White Motor Company. Applications were received totaling \$3,600,000 for the \$2,500,000 issue offered to stockholders a few weeks ago. This represents half of the authorized preferred stock, the remaining portion of which will be held pending the growth and needs of the business.

U. of M. Announces 1924-25 Schedule

Convenient Roster Arrangements Make the Course Available to All

The 1924-25 schedule of the University of Michigan covering courses in highway engineering and transport has just been announced.

In order to make it possible for men connected with highway transport operations to attend these courses with the least possible interruption to their professional work, the courses are given only during the winter months and in two week periods. They are decidedly professional short period courses especially designed for mature men engaged in the practice of engineering or highway transport. The subjects may be taken in part or full. The fee for each course is \$10.

December 8 to 19, 1924

C. E. 77. Highway Engineering Financing, Management and Organization. Professor Swinton.

C. E. 81. American and English Highway Transport Methods. Professor Blanchard.

December 22, 1924 to January 2, 1925

C. E. 67. Highway Transport Economics and Surveys. Professors Blanchard and Swinton.

C. E. 72. Gravel and Quarry Plants and Gravel and Broken Stone Roads. Professor Morrison.

January 5 to 16, 1925

C. E. 73. Brick, Cement-Concrete, Stone Block and Wood Block Pavements. Professor Morrison.

C. E. 76. Highway Engineering Theory and Design. Professor Swinton.

C. E. 80. Inter-relationship of Highway, Railway and Waterway Transport. Professors Riggs and Worley.

January 19 to 30, 1925

C. E. 68. Bituminous Surface Treatments; Bituminous Macadam, Bituminous Concrete, and Sheet Asphalt Pavements. Professor Blanchard.

C. E. 84. Highway Transport Management. Professor Swinton.

February 2 to 13, 1925

C. E. 69. Highway Laboratory Research. Professor Morrison.

C. E. 70. Highway Structures. Professors Gram and Cissel.

M. E. 40. Mechanism, Operation and Maintenance of Motor Trucks, Tractors and Trailers. Professor Lay.

February 16 to 19, 1925

Eleventh Annual State Conference on Highway Engineering at the University of Michigan.

February 23 to March 6, 1925

C. E. 71. Highway Specifications, Contracts and Jurisprudence. Professor Riggs.

C. E. 82. Highway Transport Costs and Record Systems. Professor Swinton.

March 9 to 20, 1925

C. E. 76. Highway Engineering Theory and Design. Professor Swinton.

C. E. 78. Grading Machinery and Operations, Drainage Systems and Earth and Sand-Clay Roads. Professor Morrison.

C. E. 79. Highway Transport Legislation. Professor Blanchard.

C. E. 85. Traffic Engineering and Its Applications to Street Design and City Planning. Professor Blanchard.

December 8, 1924 to March 20, 1925

C. E. 75. Highway Engineering Seminar. Professors Blanchard, Morrison and Swinton.

C. E. 83. Highway Transport Seminar. Professors Blanchard and Swinton.

Boston Railroad Takes on Buses

The Boston & Maine Transportation Company has been organized in Boston by the Boston & Maine Railroad Company to go into the bus business for carrying

passengers and freight. It has an authorized capital of \$100,000. It is hoped that in this way it may be able to fortify itself and forestall being surrounded by buses and trucks in a network which would do irreparable damage to its steam lines.

President James H. Heustis has considered such a plan for a long time as a possible solution of the railroad's troubles in competition, and the failure of branch lines to be operated upon a paying basis, which caused their discontinuance.

The charter of the Boston & Maine Transportation Company permits it to engage in the business of operating and owning motor buses for the transportation of passengers and motor trucks for carrying freight.

Railway Company May Operate Bus Lines in Cleveland

Legislation authorizing operation of three motor bus lines within the city of Cleveland by the Cleveland Railway Company was introduced in city council recently. At the same time City Traction Commissioner C. M. Ballou filed with council a special report on bus transportation in which he approved the operation of buses in Cleveland as feeders to railway lines.

Personal

F. E. Barlow, formerly assistant sales manager, has become president of the Rite Motors Corp., now established Metropolitan distributors for the new Bethlehem.

Clain L. Barnes has been appointed assistant to the president of the Martin-Parry Corp., and also vice-president of the Oakes Co., of Indianapolis, a division of the Martin-Parry Corp. Mr. Barnes who has been affiliated with the Detroit Steel Products Co. and the Willys Overland Company and has also engaged extensively in financial reorganization matters in connection with industrial corporations, will take over work in the Martin Parry Corp. of a general executive character.

F. D. Brenaman was originally appointed special sales representative by the Oakes Company of Indianapolis, manufacturer of automobile parts and accessories. Mr. Brenaman was formerly identified with the Hassler Shock Absorber Company and the Lincoln Shock Absorber Company.

George A. Brush, formerly sales manager for F. E. Maffett, Inc., and general sales manager for Ozburn-Abston & Co., has been appointed general sales manager of the Walker Mfg. Co. Mr. Brush has worked up through the ranks starting as a jobber salesman culminating in his present appointment as sales manager for the afore-mentioned company.

John D. Carberry, formerly assistant secretary and treasurer of the United States Rubber Co., has resigned from that company after a continuous service of more than thirty-two years. He became identified with the company in 1892 as secretary of the committee that appraised properties and assets of various companies entering into the formation of U. S. Rubber. In 1903 he was elected assistant secretary, later becoming assistant treasurer, an active director and

an officer of many of its subsidiary companies.

W. T. Chapman has become district sales manager for the Bethlehem Motors Corporation, of New York, covering the middle Atlantic States in behalf of the new Bethlehem truck.

Frank G. Eastman has resigned as a member of the sales section of the advertising staff of the General Motors Corp. to become a member of the Glen Buck Co., Chicago. Mr. Eastman was formerly advertising manager of the Packard Motor Car Co., and the Lincoln Motor Car Co.

Armin Elmendorf, after two years of investigation in Europe in developments in the construction of railroad coaches, street cars and omnibuses, has rejoined the Haskellite Mfg. Corp., Chicago.

Fred Fisher, Charles T. Fisher and Lawrence P. Fisher resigned as officers and directors of the Fisher Body Corp. at a special meeting of the board of directors. William A. Fisher was elected president and Edward F. and Alfred J. Fisher became vice-presidents.

Chas. W. Ford, until recently general manager of the Kansas City, Clay County and St. Joseph Railway, has resigned to become district representative of the Yellow Coach Mfg. Co., with headquarters in Kansas City.

E. S. Friend, founder and vice-president of the Bonded Securities Corp., has organized the E. S. Friend Co., with offices at 305 Madison Ave., New York. He is president of the new company.

John H. Mach, who has been manager of the St. Louis branch of the Autocar Co., of Ardmore, Pa., for the past six years, has been named special factory representative of the Autocar Co. in New York City and has been succeeded here by E. S. Mills, formerly of the factory at Ardmore.

W. T. Morris, head of the American Chain Co., Bridgeport, Conn., was elected president of the Automotive Equipment Ass'n at its recent convention in Chicago.

Alfred G. Norris has been appointed manager of the New England office of the Strom Ball Bearing Mfg. Co., with offices in Hartford, Conn. Mr. Norris has been identified with the ball bearing industry in New England for a number of years. A. W. Wiese, sales engineer of the company, has been transferred from the Philadelphia office to the new office in Hartford.

Walter M. Petty recently severed his connection as chief engineer of Service Motors, Inc., Wabash, Ind., to become associated with the International Motor Co., Allentown, Pa., as assistant engineer of its Rail Car Division.

Elijah G. Poxson, formerly assistant general sales manager and later general sales manager of the Dort Motor Car Co., has joined the sales staff of the Reo Motor Car Co., specializing in commercial vehicles. Mr. Poxson has a wide acquaintance among automobile men, as most of his time since first entering sales work in 1907 has been spent in domestic and foreign travel.

H. A. Robinson, president of Robinson & Kelly, Inc., Morristown, New Jersey, has purchased the stock holding of J. F. Kelly in that firm. The name has been changed to Robinson Motor Company. Under the new name it will continue to carry the Reo line in its territory.

C. A. Ward, Jr., recently resigned as sales manager of the Acme Motor Truck Co., for health reasons. Mr. Ward was sales manager of this company for the past year and has been in its employ practically from its inception nine years ago. He was successively New York and Cleveland branch manager. Mr. C. J. Helms, general manager of the company, has not yet announced plans for a successor.

Commercial Car Specifications—Corrected Monthly

The Specifications, Chassis Prices, Etc., Are Corrected Each Month From Data Supplied Direct by the Makers. Gasoline Tractor-Trucks Will be Found at the End of Gasoline Commercial Cars

Those Chassis Which Are Sold and Recommended for Passenger Transportation Are Designated in the Following Table by Reference Sign (§) in Front of the Name

For Specially Designed Motor Bus Chassis See Pages 42 and 43

See Table for Replacement Data. Truck Frame Dimensions Are Included in Same Table

(Where prices are not given it is because we have been unable to get them from authoritative sources)

For full name and address of manufacturer and information regarding complete line see page 51

| Trade Name and Model | General | | | Engine | | | | | Electrical System | | Clutch | Gearset | | Rear Axle | | Gear Ratios | | Front Axle Make and Model | Springs (Make) | Steering Gear (Make) | Wheels (Make) | Rims (Make) | Chassis Weight (lbs.) (stripped) | | |
|-------------------------------------|-----------------------------|-------------------|-------------------|--------------------------|---------------------|-------------------|-----------------|-----------------|-------------------|------------------------|----------------|----------------|----------|-------------------|----------------|--------------|-----------|---------------------------|----------------|----------------------|---------------|-------------|----------------------------------|-------------------------|------------------------|
| | Standard Wheelbase (inches) | Tire Size §§ | | Bore and Stroke (inches) | N.A.C.C. Rated H.P. | Valve Arrangement | Governor (Make) | Radiator (Make) | Fuel System | | | Make and Model | Location | Universals (Make) | Make and Model | Final Drive | Type | | | | | | | Total Reduction in High | Total Reduction in Low |
| | | Front (inches) | Rear (inches) | | | | | | Carburetor (Make) | Ignition System (Make) | | | | | | | | | | | | | | | |
| 1000 Pounds | | | | | | | | | | | | | | | | | | | | | | | | | |
| Chevrolet Sup. Com. Ch. Overland 91 | 410 103 395 100 | 30x3 1/2 30x3 1/2 | 30x3 1/2 30x3 1/2 | 3 3/4x4 3 1/2x4 | 21.7 H 19.6 L | PS PC | Non Non | Har Own | Zen Thl | Rem A-L Rem A-L | Own B&B Own 91 | U 3 | U 3 | Own Own | Own Sup Own 91 | K P | 3.77 4.50 | 12.5 17.6 | A A | Hay Hay | Jax Hay | 1430 1550 | | | |
| 1500 Pounds | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dodge Brothers Rainer, R-31 | 730 116 1970 125 | 32x4 32x4 1/2 | 32x4 32x4 1/2 | 3 3/4x4 3 1/2x5 | 24.0 L 19.6 L | SP PS | Non Non | McC Har | Ste Zen | N-E Eis | Own B-L 30 | Own B-L 30 | U 3 | U 3 | Own Har | Own Tim 6258 | D D | 4.54 6.75 | 18.9 22.5 | A A | Kel Jon | Kel Fir | 1992 2500 | | |
| Rugles 15 | 122 125 | 32x4 1/2 | 32x4 1/2 | 3 1/2x5 | 19.6 L | PS | Non | Per Zen | Per Zen | Bos Bos | Own Ful J | Own Ful J | U 3 | U 3 | Own Spi | Col 3000 | B B | 5.81 19.7 | A A | Woo Fir | Woo Fir | 3225 2500 | | | |
| Yellow Cab Mod T3 | 2400 103 1295 135 | 34x5 29x4 1/2 | 34x5 29x4 1/2 | 3 3/4x5 3 3/4x5 | 22.5 L | SP PS | Non Non | Lon Zen | Lon Zen | Bos Bos | Own B-L 30Y | Own B-L 30Y | U 4 | U 3 | Own Spi | Tim 5330 | B B | 4.90 16.3 | A B | Gen Gen | Woo Fir | 2500 2500 | | | |
| 1 Ton | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acme Flyer | 130 | 30x5 | 30x5 | 4 1/4x4 1/2 | 28.9 L | FP | Non | Roc Zen | Zen | A-L Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Blo | Col 52000 | S S | 5.10 24.4 | A A | Ros Ros | Smi Fir | 3000 3800 | | | |
| Autocar F | 2200 97 | 34x4 1/2 | 34x4 1/2 | 4 1/4x4 1/2 | 18.1 L | SP | Non | Own Str | Str | Bos Bos | Own Ful | Own Ful | U 3 | U 3 | Own Spi | Own F | R R | 8.30 33.2 | A A | Ros Ros | Hoo Hoo | 3800 3800 | | | |
| Autocar G | 2300 124 | 34x4 1/2 | 34x4 1/2 | 4 1/4x4 1/2 | 18.1 L | SP | Non | Own Str | Str | Bos Bos | Own Ful | Own Ful | U 3 | U 3 | Own Spi | Own F | R R | 8.30 33.2 | A A | Ros Ros | Hoo Hoo | 3800 3800 | | | |
| Bessemer G | 1595 125 | 33x5 | 33x5 | 3 3/4x5 | 19.6 L | FP | Non | Bus Zen | Zen | G&D Bos | Own B-L 30 | Own B-L 30 | U 3 | U 3 | Own Spi | Own F | R R | 6.86 21.8 | A A | Ros Ros | Van Van | 3150 3150 | | | |
| Bethlehem KN | 1850 135 | 34x5 | 34x5 | 3 3/4x5 1/2 | 22.3 L | PC | Non | Chi Zen | Zen | Bos Bos | Own B-L 30 | Own B-L 30 | U 3 | U 3 | Own Spi | Tim 6352 | S S | 5.13 20.5 | A A | Ros Ros | Van Van | 3150 3150 | | | |
| Betz J-3 | 1850 135 | 34x5 | 34x5 | 3 3/4x5 1/2 | 22.3 L | PC | Non | Chi Zen | Zen | Bos Bos | Own B-L 30 | Own B-L 30 | U 3 | U 3 | Own Spi | Tim 6352 | S S | 5.13 20.5 | A A | Ros Ros | Van Van | 3150 3150 | | | |
| Brookway E-3 | 1700 130 | 34x5 | 34x5 | 3 3/4x5 1/2 | 23.4 L | PC | Non | G&O Zen | Zen | Bos Bos | Own B-L 30 | Own B-L 30 | U 3 | U 3 | Own Spi | Col 52024 | S S | 5.13 20.5 | A A | Ros Ros | Van Van | 3150 3150 | | | |
| Casco A | 1700 130 | 34x5 | 34x5 | 3 3/4x5 1/2 | 23.4 L | PC | Non | G&O Zen | Zen | Bos Bos | Own B-L 30 | Own B-L 30 | U 3 | U 3 | Own Spi | Col 52000 | S S | 5.85 23.4 | A A | Woh Woh | Are Are | 3200 1850 | | | |
| Chevrolet Sup. | 550 127 | 34x4 1/2 | 34x4 1/2 | 3 1/4x4 1/2 | 21.7 H | PS | Non | Har Zen | Zen | Rem Bos | Own Ful | Own Ful | U 3 | U 3 | Own Spi | Own Sup | S S | 5.85 23.4 | A A | Woh Woh | Are Are | 3200 1850 | | | |
| Commer 11 | 2500 130 | 34x5 | 34x5 | 3 1/2x5 | 22.5 L | PC | Non | Lon Zen | Zen | Rem Bos | Own Ful | Own Ful | U 3 | U 3 | Own Spi | Own Sup | S S | 5.85 23.4 | A A | Woh Woh | Are Are | 3200 1850 | | | |
| Concord E | 1600 130 | 34x4 1/2 | 34x4 1/2 | 3 1/4x4 1/2 | 22.5 L | PC | Non | McC Zen | Zen | Bos Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | She W1501 | S S | 6.20 24.8 | A A | Ros Ros | Smi Fir | 3500 3750 | | | |
| Corbett E | 130 115 | 33x5 | 33x5 | 3 3/4x5 | 22.5 L | PC | Non | McC Zen | Zen | Bos Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | She W1501 | S S | 6.20 24.8 | A A | Ros Ros | Smi Fir | 3500 3750 | | | |
| Diehl A | 115 130 | 33x5 | 33x5 | 3 3/4x5 | 22.5 L | PC | Non | Per Zen | Zen | Gim A-L | Cov Cov | Cov Cov | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Dorris K-2 | 2490 132 | 33x5 | 33x5 | 3 3/4x5 | 22.5 L | PC | Non | Mod Zen | Zen | Gim A-L | Cov Cov | Cov Cov | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Duplex G | 132 132 | 33x5 | 33x5 | 3 3/4x5 | 22.5 L | PC | Non | Mod Zen | Zen | Gim A-L | Cov Cov | Cov Cov | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Federal R-2 | 370 124 | 30x3 1/2 | 30x3 1/2 | 3 3/4x5 | 22.5 L | PC | Non | Own Zen | Zen | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Ford T | 1495 130 | 35x5 | 35x5 | 3 3/4x5 1/2 | 22.5 L | PC | Non | Liv Zen | Zen | Gim A-L | Cov Cov | Cov Cov | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| 1 1/2 Ton | | | | | | | | | | | | | | | | | | | | | | | | | |
| Garford 15 | 132 132 | 34x5 | 34x5 | 3 3/4x5 1/2 | 22.5 L | PC | Non | Chi Str | Str | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Gary W.D. | 1590 132 | 36x5 | 36x5 | 3 3/4x5 1/2 | 22.5 L | PC | Non | Chi Str | Str | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| GMC K-16 | 132 132 | 34x5 | 34x5 | 3 3/4x5 1/2 | 22.5 L | PC | Non | McC Zen | Zen | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Goffredo 20 B | 132 132 | 34x5 | 34x5 | 3 3/4x5 1/2 | 22.5 L | PC | Non | McC Zen | Zen | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Graham BB | 1175 130 | 33x5 | 33x5 | 3 3/4x5 | 22.5 L | PC | Non | McC Zen | Zen | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Gramm-Bern 10-Sp | 1360 126 | 33x5 | 33x5 | 3 3/4x5 | 22.5 L | PC | Non | Chi Str | Str | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Grass-Premier 40 | 1650 132 | 33x5 | 33x5 | 3 3/4x5 | 22.5 L | PC | Non | Chi Str | Str | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Guider B | 1450 135 | 34x5 | 34x5 | 3 3/4x5 | 22.5 L | PC | Non | Chi Str | Str | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Independent (Iowa) | 129 129 | 34x5 | 34x5 | 3 3/4x5 | 22.5 L | PC | Non | Chi Str | Str | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Indiana 11 | 129 129 | 34x5 | 34x5 | 3 3/4x5 | 22.5 L | PC | Non | Chi Str | Str | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Intern't "S" | 124 124 | 32x4 1/2 | 32x4 1/2 | 3 3/4x5 | 22.5 L | PC | Non | Chi Str | Str | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Kearns H | 1150 118 | 32x4 1/2 | 32x4 1/2 | 3 3/4x5 | 22.5 L | PC | Non | Chi Str | Str | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Kenworth OS | 2150 140 | 32x4 1/2 | 32x4 1/2 | 3 3/4x5 | 22.5 L | PC | Non | Chi Str | Str | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Kenworth OL | 2250 140 | 32x4 1/2 | 32x4 1/2 | 3 3/4x5 | 22.5 L | PC | Non | Chi Str | Str | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| King-Zeiler | 2050 134 | 34x5 | 34x5 | 3 3/4x5 | 22.5 L | PC | Non | Chi Str | Str | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Kissel | 1585 140 | 34x5 | 34x5 | 3 3/4x5 | 22.5 L | PC | Non | Chi Str | Str | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Luedinghaus | 1650 132 | 34x5 | 34x5 | 3 3/4x5 | 22.5 L | PC | Non | Chi Str | Str | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Menominee | 1875 130 | 34x5 | 34x5 | 3 3/4x5 | 22.5 L | PC | Non | Chi Str | Str | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Moreland R-R | 1875 130 | 34x5 | 34x5 | 3 3/4x5 | 22.5 L | PC | Non | Chi Str | Str | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |
| Moreland RC | 2250 180 | 32x6 | 32x6 | 4x5 | 22.5 L | PC | Non | Chi Str | Str | Rem Bos | Own B-L 31 | Own B-L 31 | U 3 | U 3 | Own Spi | Col 5000 | S S | 5.12 18.5 | A A | Ros Ros | Bim Fir | 2925 2400 | | | |

For full name and address of manufacturer and information regarding complete line see page 51

| Trade Name and Model | General | | | Engine | | | | Electrical System | | | Clutch | | Gearset | | | Rear Axle | | Gear Ratios | | Front Axle Make and Model | Springs (Make) | Wheels (Make) | Rims (Make) | Chassis Weight (lbs.) | | | | | |
|----------------------|-----------------------------|--------------------|---------------|--------------------------|---------------------|-------------------|---------------|-------------------|-----------------|-------------------|-------------|------------------------|------------------------------|------|----------------|-----------|----------|-----------------------|-------------------|---------------------------|----------------|---------------|-------------|-----------------------|----------------|-------------|------|-------------------------|------------------------|
| | Standard Wheelbase (Inches) | Tire Size (Inches) | | Bore and Stroke (Inches) | N.A.C.C. Rated H.P. | Valve Arrangement | Oiling System | Governor (Make) | Radiator (Make) | Carburetor (Make) | Fuel System | Ignition System (Make) | Generator and Starter (Make) | Type | Make and Model | Type | Location | No. of Forward Speeds | Universals (Make) | | | | | | Make and Model | Final Drive | Type | Total Reduction in High | Total Reduction in Low |
| | | Front (Inches) | Rear (Inches) | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 Ton—con'd | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nash 2018 | 1595 | 34x4 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | F | Sim | Lon | Str | G | Eis | A-L | P | D-G | 3 | Own | Cla 1-D | I | 6.80 | 21.8 | D | 1 | 3.66 | 21.8 | | | | |
| Nelson LeMoon GP-1 | 151 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Noble A-76 | 1575 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| O. K. O. | 1575 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Ogden A-2 | 125 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Patriot 7R | 1475 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Penn. A-4 | 750 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Pioneer A-4 | 1550 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Rainier R-29 | 2150 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Rainbow GA | 120 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Sanford W-10 | 140 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Schacht | 132 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Stewart 16 | 1195 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 3/4 x 5 1/2 | 22.5 L | L | P | Non | Chi | Zen | V | Spi | Bos | D | Ful | 3 | Spi | Cla B-307 | W | 5.66 | 25.1 | W | 1 | 5.66 | 25.1 | | | | |
| Triangle AA | 128 | 34x5 1/2 | 34x5 1/2 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | |

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For full name and address of manufacturer and information regarding complete line see page 51

| Trade Name and Model | General | | | Engine | | | | | Electrical System | | Clutch | Gearset | | Rear Axle | | Front Axle Make and Model | Springs (Make) | Steering Gear (Make) | Wheels (Make) | Rims (Make) | Chassis Weight (lbs.) (stripped) | | | | | | |
|--------------------------|-----------------------------|----------------|---------------|---------------------|-------------------|----|-----------------|-----------------|-------------------|-----|--------|------------------------|------------------------------|-----------|------|---------------------------|----------------|----------------------|---------------|-------------|----------------------------------|----------------|-------------|------|-------------------------|------------------------|------------------|
| | Standard Wheelbase (Inches) | Tire Size | | N.A.C.C. Rated H.P. | Valve Arrangement | | Governor (Make) | Radiator (Make) | Fuel System | | | Ignition System (Make) | Generator and Starter (Make) | Make | Type | | | | | | | Make and Model | Final Drive | Type | Total Reduction in High | Total Reduction in Low | Brakes, Location |
| | | Front (Inches) | Rear (Inches) | | Oiling System | PC | | | PP | PC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | PP | Carburetor (Make) | Fuel Feed |
| 2 Ton—Con'd | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DeMartini..... | 168 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 28.9 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 6.50 | 26.0 | A | Tim 1520 | | | | | |
| Dixon..... | 145 | 34x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 7.75 | 30.0 | A | Tim 1520 | | | | | |
| Duplex A..... | 145 | 34x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 7.75 | 30.0 | A | Tim 1520 | | | | | |
| Eagle 100..... | 2275 | 34x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Eagle 104..... | 2395 | 34x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Fager 104..... | 3300 | 34x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Forscher D..... | 1985 | 34x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Fulton C..... | 144 | 34x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Gottfredson 41..... | 146 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Grass-Remier 70..... | 1750 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Guider E..... | 2775 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| G.W. E..... | 2250 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Hahn K..... | 1850 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Hugh HA..... | 1750 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Indiana 20..... | 150 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| International 43..... | 130 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Kearns N1..... | 2200 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Kenworth M..... | 3100 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Kimball AB..... | 3435 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Macar V1..... | 163 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Macar V3..... | 163 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Maack AB..... | 3300 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Maack AB..... | 3300 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Moreland EX..... | 2950 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Moreland EC..... | 3780 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Nash..... | 2150 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Nash 4017..... | 2750 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| National M..... | 137 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Nel' n & LeMoon GP2..... | 3300 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Netco DK..... | 3300 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Northway C2..... | 2900 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Noble B31..... | 2500 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| O.K. K..... | 2250 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Onida B9..... | 2825 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Ohkosh AW..... | 3080 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Ohkosh AAW..... | 3180 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Patriot 9L..... | 146 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Penn..... | 2300 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Pierce Arrow XA..... | 3300 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Rainier R28..... | 3000 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Rainier R28..... | 3190 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Republic 11X..... | 143 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Rugles 41..... | 148 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Sandow JS..... | 144 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Schmidt J..... | 3200 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Schmidt J..... | 2000 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Selden 33..... | 146 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Service 42..... | 153 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Sterling 2..... | 3545 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Stewart 9..... | 1970 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Stoughton D..... | 1605 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Traffic 4000C..... | 132 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | Tim 1520 | | | | | |
| Transit 36..... | 2850 | 36x4 | 36x7 | 4 1/4 x 5 1/2 | 25.6 | L | PC | Non | Own | Zen | V | Bos | Non | B-L | D | Tim 6400 | W | W | 8.80 | 31.8 | A | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 3657 | 3658 | 3659 | 3660 | 3661 | 3662 | 3663 | 3664 | 3665 | 3666 | 3667 | 3668 | 3669 | 3670 | 3671 | 3672 | 3673 | 3674 | 3675 | 3676 | 3677 | 3678 | 3679 | 3680 | 3681 | 3682 | 3683 | 3684 | 3685 | 3686 | 3687 | 3688 | 3689 | 3690 | 3691 | 3692 | 3693 | 3694 | 3695 | 3696 | 3697 | 3698 | 3699 | 3700 | 3701 | 3702 | 3703 | 3704 | 3705 | 3706 | 3707 | 3708 | 3709 | 3710 | 3711 | 3712 | 3713 | 3714 | 3715 | 3716 | 3717 | 3718 | 3719 | 3720 | 3721 | 3722 | 3723 | 3724 | 3725 | 3726 | 3727 | 3728 | 3729 | 3730 | 3731 | 3732 | 3733 | 3734 | 3735 | 3736 | 3737 | 3738 | 3739 | 3740 | 3741 | 3742 | 3743 | 3744 | 3745 | 3746 | 3747 | 3748 | 3749 | 3750 | 3751 | 3752 | 3753 | 3754 | 3755 | 3756 | 3757 | 3758 | 3759 | 3760 | 3761 | 3762 | 3763 | 3764 | 3765 | 3766 | 3767 | 3768 | 3769 | 3770 | 3771 | 3772 | 3773 | 3774 | 3775 | 3776 | 3777 | 3778 | 3779 | 3780 | 3781 | 3782 | 3783 | 3784 | 3785 | 3786 | 3787 | 3788 | 3789 | 3790 | 3791 | 3792 | 3793 | 3794 | 3795 | 3796 | 3797 | 3798 | 3799 | 3800 | 3801 | 3802 | 3803 | 3804 | 3805 | 3806 | 3807 | 3808 | 3809 | 3810 | 3811 | 3812 | 3813 | 3814 | 3815 | 3816 | 3817 | 3818 | 3819 | 3820 | 3821 | 3822 | 3823 | 3824 | 3825 | 3826 | 3827 | 3828 | 3829 | 3830 | 3831 | 3832 | 3833 | 3834 | 3835 | 3836 | 3837 | 3838 | 3839 | 3840 | 3841 | 3842 | 3843 | 3844 | 3845 | 3846 | 3847 | 3848 | 3849 | 3850 | 3851 | 3852 | 3853 | 3854 | 3855 | 3856 | 3857 | 3858 | 3859 | 3860 | 3861 | 3862 | 3863 | 3864 | 3865 | 3866 | 3867 | 3868 | 3869 | 3870 | 3871 | 3872 | 3873 | 3874 | 3875 | 3876 | 3877 | 3878 | 3879 | 3880 | 3881 | 3882 | 3883 | 3884 | 3885 | 3886 | 3887 | 3888 | 3889 | 3890 | 3891 | 3892 | 3893 | 3894 | 3895 | 3896 | 3897 | 3898 | 3899 | 3900 | 3901 | 3902 | 3903 | 3904 | 3905 | 3906 | 3907 | 3908 | 3909 | 3910 | 3911 | 3912 | 3913 | 3914 | 3915 | 3916 | 3917 | 3918 | 3919 | 3920 | 3921 | 3922 | 3923 | 3924 | 3925 | 3926 | 3927 | 3928 | 3929 | 3930 | 3931 | 3932 | 3933 | 3934 | 3935 | 3936 | 3937 | 3938 | 3939 | 3940 | 3941 | 3942 | 3943 | 3944 | 3945 | 3946 | 3947 | 3948 | 3949 | 3950 | 3951 | 3952 | 3953 | 3954 | 3955 | 3956 | 3957 | 3958 | 3959 | 3960 | 3961 | 3962 | 3963 | 3964 | 3965 | 3966 | 3967 | 3968 | 3969 | 3970 | 3971 | 3972 | 3973 | 3974 | 3975 | 3976 | 3977 | 3978 | 3979 | 3980 | 3981 | 3982 | 3983 | 3984 | 3985 | 3986 | 3987 | 3988 | 3989 | 3990 | 3991 | 3992 | 3993 | 3994 | 3995 | 3996 | 3997 | 3998 | 3999 | 4000 | 4001 | 4002 | 4003 | 4004 | 4005 | 4006 | 4007 | 4008 | 4009 | 4010 | 4011 | 4012 | 4013 | 4014 | 4015 | 4016 | 4017 | 4018 | 4019 | 4020 | 4021 | 4022 | 4023 | 4024 | 4025 | 4026 | 4027 | 4028 | 4029 | 4030 | 4031 | 4032 | 4033 | 4034 | 4035 | 4036 | 4037 | 4038 | 4039 | 4040 | 4041 | 4042 | 4043 | 4044 | 4045 | 4046 | 4047 | 4048 | 4049 | 4050 | 4051 | 4052 | 4053 | 4054 | 4055 | 4056 | 4057 | 4058 | 4059 | 4060 | 4061 | 4062 | 4063 | 4064 | 4065 | 4066 | 4067 | 4068 | 4069 | 4070 | 4071 | 4072 | 4073 | 4074 | 4075 | 4076 | 4077 | 4078 | 4079 | 4080 | 4081 | 4082 | 4083 | 4084 | 4085 | 4086 | 4087 | 4088 | 4089 | 4090 | 4091 | 4092 | 4093 | 4094 | 4095 | 4096 | 4097 | 4098 | 4099 | 4100 | 4101 | 4102 | 4103 | 4104 | 4105 | 4106 | 4107 | 4108 | 4109 | 4110 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

[illegible]

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|--------------------------|------|-------|-------|---------|---------|-------|--------|--------|-----|-----|-----|-----|-----|-----|-----|--------|--------|---|-----|----------|----------|-----|------|------|------|-----------|-----------|-----|-----|------|------|
| Harvey WHB..... | 3050 | 160 | 30x51 | 36x12 | Bud YBU | 41x56 | 32x4 | PC Sim | McC | Own | Str | G | Eis | Non | Ful | D | B-L 60 | A | 4 | Spi | She W-32 | W | 1/2 | 10.2 | 54.8 | A | She 4FA20 | Bea | Ros | Smi | 8950 |
| Hawkeye N..... | 180 | 30x51 | 36x12 | Bud YBU | 41x56 | 32x4 | PC Sim | McC | Own | Str | G | Eis | Non | Ful | D | B-L 60 | A | 4 | Spi | She W-32 | W | 1/2 | 10.2 | 54.8 | A | She 4FA20 | Bea | Ros | Smi | 7060 | |
| Indiana 36..... | 172 | 30x5 | 36x10 | Own 40 | 41x56 | 32x4 | PC Sim | McC | Own | Str | G | Eis | Non | Ful | D | B-L 60 | A | 4 | Spi | She W-32 | W | 1/2 | 10.2 | 54.8 | A | She 4FA20 | Bea | Ros | Smi | 6800 | |
| Kearns T..... | 4000 | 30x5 | 36x10 | Wia VAU | 41x56 | 32x4 | PC Sim | McC | Own | Str | G | Eis | Non | Ful | D | B-L 60 | A | 4 | Spi | She W-32 | W | 1/2 | 10.2 | 54.8 | A | She 4FA20 | Bea | Ros | Smi | 7600 | |
| Kleiber..... | 4560 | 30x5 | 36x12 | Own L-4 | 41x56 | 32x4 | PC Sim | McC | Own | Str | G | Eis | Non | Ful | D | B-L 60 | A | 4 | Spi | She W-32 | W | 1/2 | 10.2 | 54.8 | A | She 4FA20 | Bea | Ros | Smi | 7900 | |
| Kelly-Spring'd K-41..... | 4000 | 30x5 | 36x12 | Own L-4 | 41x56 | 32x4 | PC Sim | McC | Own | Str | G | Eis | Non | Ful | D | B-L 60 | A | 4 | Spi | She W-32 | W | 1/2 | 10.2 | 54.8 | A | She 4FA20 | Bea | Ros | Smi | 7200 | |
| King Zettler..... | 3025 | 30x5 | 40x10 | Con L-4 | 41x56 | 32x4 | PC Sim | McC | Own | Str | G | Eis | Non | Ful | D | B-L 60 | A | 4 | Spi | She W-32 | W | 1/2 | 10.2 | 54.8 | A | She 4FA20 | Bea | Ros | Smi | 6800 | |
| Krebs Little..... | 170 | 30x5 | 40x10 | Con L-4 | 41x56 | 32x4 | PC Sim | McC | Own | Str | G | Eis | Non | Ful | D | B-L 60 | A | 4 | Spi | She W-32 | W | 1/2 | 10.2 | 54.8 | A | She 4FA20 | Bea | Ros | Smi | 7400 | |
| Lange F..... | 4650 | 108x | 36x12 | Con L-4 | 41x56 | 32x4 | PC Sim | McC | Own | Str | G | Eis | Non | Ful | D | B-L 60 | A | 4 | Spi | She W-32 | W | 1/2 | 10.2 | 54.8 | A | She 4FA20 | Bea | Ros | Smi | 7600 | |
| Larrabee L-4..... | 4100 | 186 | 36x51 | Con L-4 | 41x56 | 32x4 | PC Sim | McC | Own | Str | G | Eis | Non | Ful | D | B-L 60 | A | 4 | Spi | She W-32 | W | 1/2 | 10.2 | 54.8 | A | She 4FA20 | Bea | Ros | Smi | 7600 | |
| Lindberg L-4..... | 4650 | 160x | 36x51 | Wau AC | 41x56 | 32x4 | PC Sim | McC | Own | Str | G | Eis | Non | Ful | D | B-L 60 | A | 4 | Spi | She W-32 | W | 1/2 | 10.2 | 54.8 | A | She 4FA20 | Bea | Ros | Smi | 7150 | |
| Mack C..... | 4950 | 156x | 36x51 | Own AC | 41x56 | 32x4 | PC Sim | McC | Own | Str | G | Eis | Non | Ful | D | B-L 60 | A | 4 | Spi | She W-32 | W | 1/2 | 10.2 | 54.8 | A | She 4FA20 | Bea | Ros | Smi | 8100 | |
| Manion E..... | 158 | 36x5 | 40x12 | Bud YBU | 41x56 | 32x4 | PC Sim | McC | Own | Str | G | Eis | Non | Ful | D | B-L 60 | A | 4 | Spi | She W-32 | W | 1/2 | 10.2 | 54.8 | A | She 4FA20 | Bea | Ros | Smi | 6760 | |
| Manion G..... | 3500 | 160 | 36x51 | Wia VAU | 41x56 | 32x4 | PC Sim | McC | Own | Str | G | Eis | Non | Ful | D | B-L 60 | A | 4 | Spi | She W-32 | W | 1/2 | 10.2 | 54.8 | A | She 4FA20 | Bea | Ros | Smi | 7650 | |
| National NB..... | 164 | 36x5 | 36x12 | Wau DU | 41x56 | 32x4 | PC Sim | McC | Own | Str | G | Eis | Non | Ful | D | B-L 60 | A | 4 | Spi | She W-32 | W | 1/2 | 10.2 | 54.8 | A | She 4FA20 | Bea | Ros | Smi | 6000 | |
| Nelson & LeMoon G..... | Opt | 36x5 | 36x51 | Con LA | 41x56 | 32x4 | PC Sim | McC | Own | Str | G | Eis | Non | Ful | D | B-L 60 | A | 4 | Spi | She W-32 | W | 1/2 | 10.2 | 54.8 | A | She 4FA20 | Bea | Ros | Smi | 7250 | |
| Noble E-71..... | 3905 | 164 | 36x5 | Bud YBU | 41x56 | 32x4 | PC Sim | McC | Own | Str | G | Eis | Non | Ful | D | B-L 60 | A | 4 | Spi | She W-32 | W | 1/2 | 10.2 | 54.8 | A | She 4FA20 | Bea | Ros | Smi | 7300 | |
| Northway C-3 1/2..... | 4200 | 36x5 | 40x12 | Own B3 | 41x | | | | | | | | | | | | | | | | | | | | | | | | | | |

For full name and address of manufacturer and information regarding complete line see page 51

| Trade Name and Model | General | | | Engine | | | | | | Electrical System | | Clutch | | Gearset | | Rear Axle | | Gear Ratios | | Front Axle Make and Model | Springs (Make) | Steering Gear (Make) | Wheels (Make) | Chassis Weight (lbs.) (stripped) | |
|----------------------|-----------------------------|--------------------|---------------|--------------------------|---------------------|-------------------|---------------|-----------------|-----------------|-------------------|------------------------|------------------------------|------|---------|----------------|-------------|------|-------------------------|------------------------|---------------------------|----------------|----------------------|---------------|----------------------------------|------------------|
| | Standard Wheelbase (inches) | Tire Size (inches) | | Bore and Stroke (inches) | N.A.C.C. Rated H.P. | Valve Arrangement | Oiling System | Governor (Make) | Radiator (Make) | Fuel System | Ignition System (Make) | Generator and Starter (Make) | Make | Type | Make and Model | Final Drive | Type | Total Reduction in High | Total Reduction in Low | | | | | | Brakes, Location |
| | | Front (inches) | Rear (inches) | | | | | | | | | | | | | | | | | | | | | | |
| 5 Ton | | | | | | | | | | | | | | | | | | | | | | | | | |
| Amer. LaFrance 5R | 5500 Opt | 36x6 | 40x14 | 4 1/2 x 6 | 36.1 | L | PS | Ow | Rus | Zen | Spl | Bos | Ow | D | Ow 5R | 4 | Ow | Ow 5R | W | F | 10.0 | 54.5 | B | Mer | 9600 |
| Atterbury 24E-LWB | 5500 174 | 36x6 | 40x14 | 5 x 6 | 40.1 | L | FP | Pie | Ow | Zen | Spl | Bos | B-L | D | B-L 60 Max | 7 | Spi | Tim 1732B | W | F | 11.6 | 110.7 | A | S P | 9500 |
| Atterbury 24E-LWB | 5500 204 | 36x6 | 40x14 | 5 x 6 1/2 | 40.1 | L | FP | Pie | Ow | Zen | Spl | Bos | B-L | D | B-L 60 | 7 | Spi | Tim 1732B | W | F | 11.6 | 110.7 | A | Sid | 9900 |
| Autocar L | 4850 156 | 34x6 | 38x12 | 4 1/2 x 5 1/2 | 28.9 | L | SP | Pha | Ow | Str | Bos | L-N | Ow | P | Ow B | 4 | Spi | Ow Y | R | F | 9.89 | 72.1 | A | Hoo | 7400 |
| Autocar M | 4650 120 | 34x6 | 38x12 | 4 1/2 x 5 1/2 | 28.9 | L | SP | Pha | Ow | Str | Bos | L-N | Ow | P | Ow B | 4 | Spi | Ow Y | R | F | 9.89 | 72.1 | A | Ros | 7200 |
| Available H5 | 4650 190 | 36x6 | 40x12 | 5 x 6 | 40.0 | L | FP | Pie | Chi | Str | Bos | Bos | B-L | D | B-L 60 | 4 | M-E | Tim 1730 | W | F | 11.3 | 60.6 | A | Ros | 9500 |
| Brockway T | 174 | 36x6 | 40x14 | 5 x 6 | 40.0 | L | FP | Pha | Bu | Str | Eis | L-N | B-L | D | B-L 60 | 4 | Spi | Tim 1732 | W | F | 10.2 | 54.8 | A | Smi | 9800 |
| Chicago 50 | 163 | 36x6 | 40x14 | 4 1/2 x 5 1/2 | 32.4 | L | FP | Pha | Bu | Str | Eis | L-N | B-L | D | B-L 60 | 4 | Pet | Tim 1732B | W | F | 10.3 | 63.1 | A | Opt | 8500 |
| Clinton 120L | 5140 204 | 36x6 | 40x14 | 5 x 6 1/2 | 40.0 | L | PC | Han | Ow | Zen | G | Bos | B-L | D | B-L 60 | 4 | M-E | Tim 1732B | W | F | 8.80 | 47.1 | A | S M | 8400 |
| Clinton 120LM | 5250 204 | 36x6 | 40x14 | 5 x 6 1/2 | 40.0 | L | PC | Han | Ow | Zen | G | Bos | B-L | D | B-L 60 | 4 | M-E | Tim 1732B | W | F | 8.80 | 47.1 | A | S M | 9400 |
| Clydesdale 4 | 5250 177 | 36x6 | 40x14 | 4 3/4 x 6 | 36.1 | L | FP | Ow | McC | Str | Eis | Bos | B-L | D | B-L 60 | 4 | Spi | Tim 1730B | W | F | 13.0 | 55.3 | A | S S | 9400 |
| Corbitt AA | 4750 178 | 36x6 | 40x14 | 5 x 6 | 40.0 | L | FP | Sim | McC | Str | Eis | Bos | B-L | D | B-L 60 | 4 | Spi | She 4FA20 | W | F | 13.0 | 96.0 | A | Ros | 9410 |
| Day-Elder EN | 170 | 36x5 | 40x6 | 4 3/4 x 6 | 36.1 | L | FP | Mon | Bus | Zen | Eis | Ow | B-L | D | B-L 60 | 4 | Spi | Tim 1732B | W | F | 10.2 | 54.8 | A | She | 8800 |
| Diamond T S | 180 | 36x6 | 40x6 | 4 3/4 x 6 | 36.1 | L | FP | Pie | G&O | Zen | G | Bos | B-L | D | B-L 60 | 4 | Spi | Tim 1732B | W | F | 11.6 | 56.4 | A | S M | 8700 |
| Dixon | 4490 160 | 36x5 | 36x12 | 4 3/4 x 6 | 36.1 | L | FP | Pie | G&O | Zen | G | Bos | B-L | D | B-L 60 | 4 | Har | Tim 1632B | W | F | Opt | 60.0 | A | Ros | 8700 |
| Federal X-2 | 163 | 36x6 | 40x6 | 4 3/4 x 6 | 36.1 | L | FP | Pha | Ow | Zen | Eis | West | B&B | P | W-G | 4 | Spi | Tim 1630B | W | F | 10.2 | 60.0 | A | Gem | 8700 |
| Garford 68D | 162 | 36x6 | 40x12 | 5 x 6 1/2 | 40.0 | L | PC | Sim | Ow | Str | G | Spl | Ow | D | Ow 68D | 4 | Spi | Tim 1732B | W | F | 8.80 | 60.0 | A | S M | 9350 |
| Gary B50 | 4850 182 | 36x6 | 40x14 | 5 x 6 1/2 | 40.0 | L | PC | McC | Chi | Str | Eis | Bos | B-L | D | B-L 60 | 4 | Spi | Tim 1730 | W | F | 11.6 | 56.4 | A | Ros | 9250 |
| G.M.C. K-101A | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101B | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101C | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101D | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101E | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101F | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101G | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101H | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101I | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101J | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101K | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101L | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101M | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101N | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101O | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101P | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101Q | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101R | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101S | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101T | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101U | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101V | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101W | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101X | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101Y | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101Z | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101AA | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101AB | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101AC | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | F | 10.0 | 86.0 | A | Ow | 8755 |
| G.M.C. K-101AD | 163 | 36x5 | 40x12 | 4 1/2 x 6 | 32.4 | L | FP | Ow | McC | Mar | G | Sim | Ow | D | B-L 60 | 4 | Spi | Tim 1632B | W | | | | | | |

| | |
|---------------|-----|
| White 40..... | 435 |
| Wilcox F..... | 435 |

[illegible]

| | | | |
|---------------|------|-----|------|
| White 40..... | 4300 | 172 | 36x5 |
| Wilcox F..... | 4350 | 162 | 36x5 |

[illegible]

DETAILED MOTOR

This Table Comprises Motor Bus Chassis Which Are Designed
For Other Chassis Which Are Recommended and Adaptable for Bus Use See Models

| Line Number | MAKE AND MODEL | GENERAL | | | | | | | ENGINE | | | | | | | ELECTRICAL SYSTEM | | | | | | | NORMAL SPEED | | | |
|-------------|-----------------------|------------------|---------------|--------------|-------------------|----------------------------|---------|--------|-----------|----------|-----------------|----------------|-------------------------------------|----------------------------|-------------------|-------------------|---------------|-----------------|-----------|----------------------|----------------------------|---------|--------------|---------------------------|---------------|--------------|
| | | Seating Capacity | Chassis Price | Weights | | | Tread | | Wheelbase | Front | Rear | Make and Model | Number of Cylinders Bore and Stroke | Rated Horse Power N.A.C.C. | Valve Arrangement | Oiling System | Radiator Make | Fuel System | | Ignition System Make | Generator and Starter Make | Battery | | Voltage and Amp. Hr. Cap. | High M. P. H. | Low M. P. H. |
| | | | | Chassis Only | Chassis with Body | Recommended Body Allowance | Make | Model | | | | | | | | | | Carburetor Make | Fuel Feed | | | Make | Model | | | |
| 1 | Ace C. | 30 | 4800 | 6500 | 11500 | 5000 | 204 | 70 | 80 1/2 | Cont 6B | 6-3 1/2 x 6 | 33.7 | L | PC | Own | Zen | V | Eis | Rem | USL | 3HVX8X | 6-110 | 35 | 6.0 | | |
| 2 | Acme K. | 30 | 4800 | 6900 | 9900 | 3000 | 200 | 58 1/2 | 74 | Cont 6B | 6-3 1/2 x 5 | 33.7 | L | PC | Own | Zen | V | Eis | Del | Wil | SJRT4 | 6-111 | 30 | 5.7 | | |
| 3 | Bridgeport 45. | 30 | 3850 | 5500 | 9900 | 3000 | 178 | 60 | 72 | Buda EBU | 4-4 1/2 x 5 1/2 | 28.9 | L | PC | Own | Zen | V | Eis | Bos | Wil | | 6-120 | | | | |
| 4 | Brockway EB. | 20 | 3200 | 3200 | 3200 | 3200 | 156 | 56 | 56 | Wisc SU | 4-4 x 5 | 25.6 | I | PC | G&O | Zen | V | Eis | L-N | Exi | | 6-105 | | | | |
| 5 | Brockway J3. | 25 | 6400 | 9280 | 2880 | 185 | 66 1/2 | 71 | 58 1/2 | Cont 6B | 6-3 1/2 x 5 | 33.7 | L | PC | Own | Zen | V | Eis | L-N | Exi | | 12-220 | 25 | 5.0 | | |
| 6 | Clinton 65B. | 30 | 4075 | 5925 | 8700 | 2725 | 184 | 58 1/2 | 58 1/2 | Bud EBU | 4-4 1/2 x 5 1/2 | 28.9 | L | PC | Own | Zen | V | ..... | Bos | Pol | 611SHK | 6-90 | 30 | 3.0 | | |
| 7 | Clinton 65BS. | 35 | 4800 | 6600 | 9600 | 3000 | 220 | 68 | 76 1/2 | Buda YBU | 4-4 1/2 x 6 | 32.4 | L | PC | Own | Zen | V | ..... | Bos | Pol | 611KPC | 6-130 | 35 | 3.0 | | |
| 8 | Commerce 20. | 14 | 4300 | 7300 | 3000 | 189 | 56 | 58 | 58 | Con 6B | 6-3 1/2 x 5 | 33.7 | L | PC | Lon | Zen | V | Bos | Bos | Wil | SJR6 | 6-177 | 35 | 7.0 | | |
| 9 | Day-Elder 20. | 20 | 5200 | 2500 | 168 | 56 | 58 | 58 | 58 | Cont K4 | 4-4 1/2 x 5 1/2 | 27.2 | L | FP | Bus | Zen | V | Eis | Bos | Wil | SJRT6 | 6-153 | 35 | 10.0 | | |
| 10 | Day-Elder 25. | 25 | 5600 | 3000 | 180 | 58 | 58 | 58 | 58 | Buda EBU | 4-4 1/2 x 5 1/2 | 28.9 | L | PC | Bus | Zen | V | Eis | Bos | Wil | SJRT6 | 6-153 | 35 | 7.0 | | |
| 11 | Day-Elder 30. | 30 | 6000 | 3500 | 192 | 68 1/2 | 74 | 68 1/2 | 74 | Cont 6B | 6-3 1/2 x 5 | 33.7 | L | PC | Bus | Zen | V | Eis | Bos | Wil | SJRT6 | 6-153 | 35 | 7.0 | | |
| 12 | Duplex FB. | 23 | 5500 | 3000 | 181 | 58 | 72 | 72 | 72 | Buda EBU | 4-4 1/2 x 5 1/2 | 28.9 | L | PC | Mod | Zen | V | Eis | Wes | Pol | | 6-220 | 35 | 10.0 | | |
| 13 | Fageol Parlor Car. | 22 | 5365 | 6450 | 10200 | 218 | 70 | 76 1/2 | 70 | Has 50 | 4-4 1/2 x 5 1/2 | 28.9 | I | PC | Lon | Zen | V | Del | Del | Exi | | 6-240 | 35 | 7.0 | | |
| 14 | Fageol Street Car. | 29 | 6315 | 6700 | 10350 | 230 | 70 | 70 | 70 | Has 75 | 6-4 1/2 x 5 1/2 | 43.6 | I | PC | Lon | Zen | V | Del | Del | Exi | | 12-240 | 35 | 6.0 | | |
| 15 | Federal. | 18 | 4200 | 1800 | 160 | 56 | 59 1/2 | 56 | 59 1/2 | Cont 6M | 4-3 1/2 x 4 1/2 | 27.3 | L | PC | Lon | Zen | V | Eis | Rem | Exi | 3LXRE | 6-185 | 35 | 7.0 | | |
| 16 | Federal. | 25 | 5450 | 2500 | 190 | 60 | 60 | 60 | 60 | Cont 6B | 4-3 1/2 x 5 | 33.7 | L | PC | Mod | Zen | V | Eis | Rem | Exi | 3LXRE | 6-185 | 35 | 6.0 | | |
| 17 | Fifth Ave. J. | 29 | 6900 | 5660 | 8235 | 2575 | 172 | 68 1/2 | 71 1/2 | Yell EZ | 4-4 x 6 | 25.6 | X | PC | Own | Zen | V | Eis | N-E | Wil | STRN27 | 12-90 | 30 | 7.5 | | |
| 18 | Fifth Ave. L. | 51 | 8860 | 6670 | 174 3/4 | 67 | 77 1/2 | 77 1/2 | 77 1/2 | Yell EZ | 4-4 x 6 | 25.6 | X | PC | Own | Zen | V | Eis | N-E | Wil | STRN27 | 12-90 | 30 | 7.5 | | |
| 19 | Garford 51D. | 29 | 6500 | 9900 | 3400 | 187 | 68 | 75 1/2 | 68 | Buda YBU | 4-4 1/2 x 6 | 32.4 | L | PC | Own | Str | V | Spl | Rem | Wil | STRN6 | 6-190 | 35 | 5.0 | | |
| 20 | Garford 726. | 25 | 4800 | 7800 | 3000 | 168 | 56 | 65 1/2 | 56 | Buda EBU | 4-4 1/2 x 5 1/2 | 28.9 | L | PC | Own | Str | V | Spl | Rem | Wil | STRN6 | 6-190 | 35 | 5.4 | | |
| 21 | Graham Bros. JB. | 21 | 1640 | 3700 | 158 | 56 | 56 | 56 | 56 | Dodge | 4-3 1/2 x 4 1/2 | 24.0 | L | PS | McC | Ste | V | N-E | N-E | Wil | | 12- | 30 | 5 | | |
| 22 | Graham Bros. XB. | 17 | 1515 | 3555 | 140 | 56 | 56 | 56 | 56 | Dodge | 4-3 1/2 x 4 1/2 | 24.0 | L | PS | McC | Ste | V | N-E | N-E | Wil | | 12- | 30 | 5 | | |
| 23 | Guider 30. | 30 | 4500 | 5600 | 8800 | 3600 | 191 | 64 | 70 | Bud EBU | 4-4 1/2 x 5 1/2 | 28.9 | L | FP | G&O | Zen | V | Eis | L-N | Wil | SJRT28 | 12-104 | 30 | 5.0 | | |
| 24 | International 33. | 18 | 4500 | 5200 | 7780 | 2400 | 202 | 64 1/2 | 65 | Own 33 | 4-4 1/2 x 5 | 22.5 | I | Sp | Own | G | Bos | Rem | Pol | | 6-100 | 19 | 22 | | | |
| 25 | International 53. | 29 | 6150 | 7400 | 3500 | 168 | 56 | 56 | 56 | Own 53 | 4-4 1/2 x 5 | 28.9 | I | Sp | Own | G | Bos | Rem | Pol | | 6-200 | 34 | 24 | | | |
| 26 | Kissel. | 18 | 4500 | 5200 | 7780 | 2400 | 202 | 64 1/2 | 65 | Own 4-36 | 4-4 1/2 x 5 1/2 | 28.9 | L | Sp | Spa | Str | V | Bos | Rem | Wil | SJRT6 | 6-153 | 40 | 25 | | |
| 27 | Larrabee X-2. | 16 | 1910 | 3450 | 4850 | 1400 | 155 | 56 | 56 | Cont 8R | 6-3 1/2 x 4 1/2 | 27.3 | L | PC | Fed | Zen | V | Bos | Bos | Exi | 3XE15 | 6-80 | 40 | 8.0 | | |
| 28 | Larrabee XH3. | 21 | 3600 | 4670 | 7670 | 3000 | 186 | 62 | 66 | Cont 6B | 6-3 1/2 x 5 | 33.7 | L | PC | Fed | Zen | V | Bos | Bos | Exi | 36XRE25 | 6-240 | 35 | 7.0 | | |
| 29 | Mack AB. | 24 | 4350 | 6300 | 11150 | 4850 | 230 1/2 | 68 | 63 1/2 | Own AB | 4-4 1/2 x 5 | 28.9 | L | PC | Own | Str | V | Spl | N-E | Exi | 6LXRE13 | 12-120 | 41 | 10.0 | | |
| 30 | Mack AB. | 25 | 4250 | 6100 | 9350 | 3250 | 196 | 68 | 63 1/2 | Own AB | 4-4 1/2 x 5 | 28.9 | L | PC | Own | Str | V | Spl | N-E | Exi | 6LXRE13 | 12-120 | 41 | 10.0 | | |
| 31 | Mason Road King C. | 30 | 2150 | 3900 | 7400 | 3500 | 168 | 56 | 56 | Her OX | 4-4 x 5 | 25.6 | L | PC | Fed | Zen | V | A-L | A-L | USL | | 12- | 35 | 7.5 | | |
| 32 | Master. | 30 | 6000 | 9500 | 3500 | 194 | 59 | 59 | 59 | Buda EBU | 4-4 1/2 x 5 1/2 | 28.9 | L | PC | Chi | Zen | V | Eis | Wes | Wil | | 12- | 25 | 5.0 | | |
| 33 | Menominee T. | 16 | 2600 | 4290 | 6400 | 2100 | 175 | 56 | 56 | Wise Y | 6-3 1/2 x 5 | 27.3 | H | PC | Own | Zen | V | Bos | Bos | Wil | SJRT6 | 6-153 | 38 | 32 | | |
| 34 | Menominee DB. | 25 | 4400 | 6020 | 9100 | 3200 | 186 | 68 | 73 | Wise TAU | 4-4 x 6 | 25.6 | L | PC | Own | Zen | V | Eis | Bos | Wil | SJRT6 | 6-153 | 32 | 6.0 | | |
| 35 | Moreland RC. | 16 | 2280 | 3850 | 5850 | 2000 | 180 | 56 | 57 1/2 | Here OXB | 4-4 x 5 | 25.6 | L | PC | Own | Zen | V | Spl | A-L | Hob | 6HTXR15A | 6-140 | 25 | 33 | | |
| 36 | Moreland EC. | 20 | 3780 | 4590 | 7590 | 3000 | 178 | 61 | 58 | Cont K4 | 4-4 1/2 x 5 1/2 | 27.3 | L | FP | Own | Sch | V | Spl | Spl | Hob | 6HTXR15A | 6-140 | 25 | 35 | | |
| 37 | Moreland AC. | 25 | 4700 | 5660 | 9160 | 3500 | 187 | 68 | 69 | Cont L4 | 4-4 1/2 x 5 1/2 | 32.5 | L | FP | Own | Sch | V | Spl | Spl | Hob | 6HTXR15A | 6-140 | 25 | 38 | | |
| 38 | Phila. Motor Coach P. | 65 | 6500 | 8750 | 14650 | 5900 | 216 | 72 | 75 | Own P | 6-4 x 6 | 38.4 | I | FP | G&O | Zen | V | N-E | N-E | Exi | 6MVE13 | 12-180 | 25 | 37 | | |
| 39 | Pierce-Arrow Z. | 25 | 4600 | 6100 | 7360 | 3500 | 176 | 56 | 57 1/2 | Own | 4 x 5 1/2 | 38.0 | T | FP | Own | Own | P | Del | Del | Wil | SJRN6 | 6-163 | 50 | 3.0 | | |
| 40 | Reo W. | 21 | 2470 | 3860 | 2000 | 185 | 60 | 58 | 58 | Own W | 6-3 1/2 x 5 | 24.3 | F | PS | Own | Sch | V | N-E | N-E | Wil | SJRT6 | 6-153 | 37 | 10.0 | | |
| 41 | Republic 81. | 15 | 7200 | 10200 | 3000 | 195 | 68 | 74 | 74 | Lyc | 4-4 x 5 | 25.6 | L | PC | Own | Str | V | Bos | Bos | USL | | 6-109 | 35 | 44 | | |
| 42 | Selden 52. | 30 | 7200 | 10200 | 3000 | 195 | 68 | 74 | 74 | Cont L4 | 4-4 1/2 x 5 1/2 | 32.4 | L | FP | Lon | Str | V | Bos | N-E | Pol | 615KPN | 12- | 25 | 6.2 | | |
| 43 | Selden. | 29 | 6100 | 10200 | 3000 | 195 | 68 | 74 | 74 | Cont 6B | 6-3 1/2 x 5 | 33.8 | L | PC | Lon | Zen | V | Eis | N-E | Pol | 615KPN | 12-300 | 35 | 6.2 | | |
| 44 | Sterling GB2. | 29 | 6100 | 10750 | 4550 | 198 | 64 1/2 | 58 1/2 | 58 1/2 | Own CU | 4-4 1/2 x 5 1/2 | 30.6 | L | PC | Own | Zen | V | Eis | Bos | Gou | ASLR632 | 6-132 | 35 | 6.20 | | |
| 45 | Six Wheel Bus. | 27 | 6500 | 10000 | 3500 | 233 1/2 | 60 | 60 | 60 | Cont 6B | 6-3 1/2 x 5 | 50.0 | | | Str | V | Eis | N-E | Wil | | 12-152 | 35 | 44 | | | |
| 46 | Union GC. | 30 | 6500 | 10000 | 3500 | 233 1/2 | 60 | 60 | 60 | Cont 6 | 4-4 1/2 x 6 | | | | McC | Zen | V | Bos | Bos | Pol | | 6-170 | 35 | 5.0 | | |
| 47 | Union EC. | 19 | 4500 | 7000 | 2500 | 198 | 58 | 58 | 58 | Cont 6 | 4-3 1/2 x 4 1/2 | | | | McC | Zen | V | Bos | Bos | Pol | | 6-137 | 40 | 5.0 | | |
| 48 | Ward LaFrance 3B. | 25 | 4950 | 6300 | 9700 | 3400 | 196 | 58 | 65 1/2 | Wau DU | 4-4 1/2 x 6 1/2 | 32.4 | L | PC | Bus | Str | V | RBo | Rem | Wil | STAT 7 | 6-177 | 35 | 47 | | |
| 49 | White 50A. | 25 | 4950 | 5395 | 192 | 71 | 73 1/2 | 73 1/2 | 73 1/2 | Own 50A | 4-4 1/2 x 5 1/2 | 28.9 | L | FP | Own | Zen | V | ..... | L-N | Opt | | 12- | 35 | 48 | | |
| 50 | Yellow Coach Z. | 67 | | | | | | | | Yell EZ | 4-4 x 6 | 25.6 | X | PC | Own | Zen | V | | | | | | | | | |

*—Pneumatic
+—Dual Pneumatic
†—Solid
‡—Dual Solid
A-K—Atwater-Kent
A-L—Auto-Lite
Arc—Archibald
B&B—Borg & Beck
Bim—Bimel
B-L—Brown-Lipe
Bud—Budd
Buda—Buda

Blo—Blood
Bos—Bosch
Bus—Bush
Cam—Campbell
Col—Columbia
Cont—Continental
D—Multiple Dry Disk
Day—Dayton
Del—Delco
Dtl—Detlaft
E-D—External Driveshaft
E-R—External Rear Wheel

Eis—Eisemann
Exi—Exide
F—Head & Side (Engine)
F—Full Floating
1/2—1/2 Floating
Fed—Feddors
Flt—Flint
Ful—Fuller
FP—Full Pressure to all Bearings, including wrist pins
G—Gravity
Glo—Globe

Gem—Gemmer
G&O—G & O
Gou—Gould
Hob—Hobbs
Hink—Hinkley
Has—Hall Scott
Herc—Hercules
I—In Head
Ig—Internal Gear
I-F—Internal Four Wheels
Ind—Indestructible
I-R—Internal Rear Wheels

ELECTRIC COM

| Name and Model Number | Total Weight Resting on Four Tires | Chassis Weight—Exclusive of Battery | Minimum Load Capacity | Maximum Load Capacity | Chassis Price | Maximum Speed | Location of Battery | Mileage Per Charge | Motor | Controller | Speeds Forward | Drive | Rear Axle | Springs | Front Tires | Rear Tires | Steering Gear | Wheelbase | Per Cent of Weight on Rear Wheels |
|-----------------------|------------------------------------|-------------------------------------|-----------------------|-----------------------|---------------|---------------|---------------------|--------------------|-------|------------|----------------|-------|-----------|---------|-------------|------------|---------------|-----------|-----------------------------------|
| Autocar E 1F. | | | | | 2400 | | | | G-E | G-E | ... | R | Own | Row | 34x4 | 34x5 | Ross | 107 | 60 |
| Autocar E 2D. | | | | | 2800 | | | | G-E | G-E | ... | R | Own | Row | 34x5 | 34x6 | Ross | 120 | 60 |
| Autocar E 3H. | | | | | 3200 | | | | G-E | G-E | ... | R | Own | Row | 34x5 | 36x8 | Ross | 128 | 60 |
| Autocar E 4Y. | | | | | 4000 | | | | G-E | G-E | ... | R | Own | Row | 34x6 | 36x8 | Ross | 138 | 60 |
| Autocar E 5M. | | | | | 4300 | | | | G-E | G-E | ... | R | Own | Row | 36x7 | 36x7 | Ross | 138 | 60 |
| C-T D-1. | 5400 | 2200 | | | | 14 | A | 55 | G-E | Own | 4 | Own | Flot | Shel | 36x3 | 36x3½ | W | 100 | 69 |
| C-T B-1.5. | 6100 | 2300 | | | | 14 | A | 60 | G-E | Own | 4 | Own | Flot | Shel | 36x3 | 36x4 | W | 91½ | 65 |
| C-T D-1.5. | 6200 | 2300 | | | | 14 | A | 60 | G-E | Own | 4 | Own | Flot | Shel | 36x3 | 36x4 | W | 116 | 71 |
| C-T B-2. | 7300 | 2400 | | | | 14 | A | 50 | G-E | Own | 4 | Own | Flot | Shel | 36x3 | 36x5 | W | 101 | 66 |
| C-T D-2. | 7300 | 2400 | | | | 14 | A | 50 | G-E | Own | 4 | Own | Flot | Shel | 36x3½ | 36x5 | W | 124 | 70 |
| C-T B-4. | 11750 | 4000 | | | | 12 | A | 50 | G-E | Own | 4 | Own | Flot | Shel | 36x4 | 36x4† | W | 116 | 68 |
| C-T C-6. | 14400 | 4300 | | | | 10 | A | 45 | G-E | Own | 4 | I | D | Shel | 36x4 | 36x4† | W | 122 | 70 |
| C-T C-7. | 16900 | 5000 | | | | 10 | A | 45 | G-E | Own | 4 | I | D | Shel | 36x5 | 36x5† | W | 126 | 65 |
| C-T A-7. | 17700 | 5800 | | | | 11 | A | 45 | G-E | Own | 4 | I | D | Shel | 36x6 | 36x4† | W | 122 | 60 |
| C-T A-10. | 22250 | 6500 | | | | 10 | A | 45 | G-E | Own | 4 | I | D | Shel | 36x7 | 36x5† | W | 132 | 59 |
| Kelland AT. | 1950 | 1000 | 1500 | | | 15 | S | 50 | G-E | G-E | 4 | R | Flot | Mer | 34x3 | 34x3 | Ross | 102 | 60 |
| Kelland BT. | 2050 | 1500 | 2000 | | | 15 | S | 50 | G-E | G-E | 4 | R | Flot | Mer | 34x3½ | 34x3½ | Ross | 102 | 60 |
| Kelland CT. | 2150 | 2000 | 2500 | | | 15 | S | 50 | G-E | G-E | 4 | R | Flot | Mer | 34x3½ | 34x4 | Ross | 102 | 60 |
| Kelland AH. | 2500 | 1000 | 1500 | | | 15 | A | 45 | G-E | G-E | 4 | C | D | Mer | 36x3 | 36x3 | Hin | 106 | 60 |
| Kelland BH. | 2600 | 1500 | 2000 | | | 15 | A | 45 | G-E | G-E | 4 | C | D | Mer | 36x3½ | 36x3½ | Hin | 106 | 60 |
| Kelland CH. | 2700 | 2000 | 2500 | | | 15 | A | 45 | G-E | G-E | 4 | C | D | Mer | 36x3½ | 36x4 | Hin | 106 | 60 |
| Kelland ATS. | 2200 | 1000 | 1500 | | | 15 | H&S | 50 | G-E | G-E | 4 | R | Flot | Mer | 34x3 | 34x3 | Ross | 102 | 60 |
| Kelland BTS. | 2300 | 1500 | 2000 | | | 15 | H&S | 50 | G-E | G-E | 4 | R | Flot | Mer | 34x3½ | 34x3½ | Ross | 102 | 60 |
| Kelland CTS. | 2400 | 2000 | 2500 | | | 15 | H&S | 50 | G-E | G-E | 4 | R | Flot | Mer | 34x3½ | 34x4 | Ross | 114 | 60 |
| Lansden Century. | 1700 | | 1250 | 1600 | | 15 | S | 60 | G-E | Own | 4 | R | Flot | SP | 32x4½ | 32x4½ | Ross | 108 | 50 |
| Lansden Century. | 1950 | | 2000 | 1850 | | 15 | S | 60 | G-E | Own | 4 | R | Flot | SP | 33x5 | 33x5 | Ross | 112 | 50 |
| Lansden Marathon. | 2900 | | 2000 | 1850 | | 14 | A | 50 | G-E | Own | 4 | C | D | SP | 36x3½ | 36x4 | Bay | 108 | 60 |

BUS SPECIFICATIONS

and Sold Exclusively for Passenger Transportation

Having Sign (\$) in the "COMMERCIAL CAR SPECIFICATIONS"

| Line Number | TRANSMISSION | | | | | REAR AXLE | | | | | | | Front Axle Make and Model | Steering Gear Make | TIRES AND WHEELS | | | | DIMENSIONS (In.) | | | | |
|-------------|--------------|---------------|----------------|-----------|------|----------------|-------------|------|------------|--------------------------|-------------------------------|-----------|---------------------------|--------------------|------------------|-------------|-----------|--------------|------------------|---------------|--------------|-----------------------|--------|
| | Clutch | Gearset | | Universal | Make | Make and Model | Final Drive | Type | Gear Ratio | | Service Brake Type & Location | Front | | | Rear | Wheels—Make | Rims—Make | Floor Height | Turning Radius | Overall | | Clearance from Ground | |
| | | Type and Make | Make and Model | | | | | | Location | Number of Forward Speeds | | | | | | | | | | Total in High | Total in Low | | Length | Width |
| 1 | D. B. L. | B. L. 55 | U | 4 | Pet | Tim 6516 | Wo | F | 5.4 | 26.6 | I-R | Tim 1550 | Ros | 36x6 | 38x7 | Day | Fir | 27½ | 34 | 316 | 90 | 9½ | |
| 2 | P. B. & B. | Cot RU | U | 4 | Blo | Tim 6511 | Wo | F | 6.8 | 35.3 | I-R | Tim 1540B | Ros | 36x6* | 36x6† | Bud | Fir | 27 | 38 | 312 | 90 | 5 | |
| 3 | D. B. L. | B. L. 50 | U | 4 | Spi | Tim 6560 | Wo | F | 6.7 | ... | I-R | She Spec | Ros | 36x6* | 36x6† | Bud | Fir | 31½ | ... | ... | ... | ... | |
| 4 | D. B. L. | B. L. 35 | U | 4 | Spi | Col 52028 | SP | F | 5.1 | ... | E-R | Col 5084 | Gem | 30x5* | 32x6* | Ind | Fir | 28½ | ... | ... | ... | ... | |
| 5 | D. B. L. | B. L. 55 | U | 4 | Spi | Cla 3D | Ig | F | 7.0 | ... | E-D | Shu 610B | Gem | 36x6* | 36x6† | Sew | Fir | 27½ | 31½ | 295¼ | 84 | 10 | |
| 6 | D. B. L. | B. L. 55 | S | 4 | M-E | Tim 6566 | Wo | F | 6.5 | 34.8 | I-R | Tim 1544B | Ros | 36x6* | 36x6† | Bud | Fir | 30 | 37 | 270 | 75½ | 9¼ | |
| 7 | D. B. L. | B. L. 55 | S | 4 | M-E | Tim 6516 | Wo | F | 6.7 | 36.1 | I-R | Tim 1550 | Ros | 36x6* | 36x6† | Bud | Fir | 26 | 40 | 286 | 90 | 7 | |
| 8 | D. B. L. | B. L. 55 | A | 4 | ... | Tim 6460 | Wo | F ½ | 6.0 | ... | ... | Tim 1452 | Ros | 32x6 | 32x6 | Bim | Fir | 30 | 27 | 231 | 74 | 9 | |
| 9 | D. B. L. | B. L. 35 | U | 3 | Spi | Tim 6462 | Wo | F | 6.5 | 21.8 | I-R | Col 7018 | Gem | 36x6* | 38x7* | Van | Fir | 32 | 30 | 237 | 70½ | 11 | |
| 10 | D. B. L. | B. L. 51 | U | 4 | Spi | Tim 6566 | Wo | F | 6.7 | 36.1 | I-R | Tim 1544 | Gem | 36x6* | 40x8* | Van | Fir | 32 | 30 | 260 | 75½ | 11 | |
| 11 | D. B. L. | B. L. 51 | U | 4 | Spi | Tim 6511S | Wo | F | 6.8 | 36.4 | I-R | Shu 610 | Gem | 36x6* | 36x6* | Van | Fir | 25 | 27 | 271½ | 90 | 6½ | |
| 12 | D. B. L. | B. L. | U | 4 | Pet | Vul 4 | Wo | F | 6.5 | 32.1 | I-R | Shu | Ros | 34x5 | 34x5† | Mot | Fir | 27 | 28 | 268 | 82 | 9 | |
| 13 | D. B. L. | B. L. 50 | U | 4 | Spi | Tim 6466 | Wo | F | 4.6 | 19.7 | I-R | Tim 1524 | Ros | 36x6* | 36x6† | Bud | ... | 19¾ | 38 | 312 | 89 | 7½ | |
| 14 | D. B. L. | B. L. 55 | U | 4 | Spi | Tim 6466 | Wo | F | 4.6 | 19.7 | I-R | Tim 4550 | Ros | 36x6* | 38x7 | Bud | ... | 20¾ | 38½ | 324 | 89 | 7½ | |
| 15 | P. B. & B. | Own | U | 4 | Spi | Tim 6460 | Wo | F | 6.5 | 32.5 | -R | Own | Gem | 35x5* | 34x7* | Smi | Fir | 28 | 28 | 245 | ... | 10 | |
| 16 | P. B. & B. | Det R400 | U | 4 | Spi | Tim 6560 | Wo | F ½ | 6.7 | 39.8 | -R | Own | Gem | 36x6* | 36x8* | Smi | Fir | 30 | 28 | 266¾ | ... | 10 | |
| 17 | P. Own | Own J | U | 4 | Sne | Tim 6412 | Wo | F ½ | 5.4 | 21.6 | I-R | Tim 1523 | Ros | 36x6 | 36x6 | Own | ... | 29½ | 31 | 277 | 87½ | 7 | |
| 18 | P. Own | Own L | U | 4 | Sne | Own L | Ig | F | 6.6 | ... | E-D | Own L | Ros | 36x5† | 36x5† | Own | ... | 26 | ... | ... | ... | ... | |
| 19 | D. Own | Own 51D | U | 4 | Spi | Tim 6511G | Wo | F | 5.4 | 26.1 | I-R | Tim 1550 | Ros | 36x6* | 36x6† | Day | Fir | 28 ¼ | 30 | 295 | 91 | 7 | |
| 20 | D. Own | Own 726 | U | 4 | Sni | Tim 6560 | Wo | F | 5.4 | 21.6 | I-R | Own | Ros | 32x6* | 32x6† | Bud | Fir | 32 | 30 | 236 | 78½ | 7½ | |
| 21 | D. Dodge | Dodge | U | 3 | UP | Own | SP | F ½ | 6.3 | 26.3 | -R | Eat | Dodge | 32x6 | 32x6 | Smi | Fir | 26 | 29 | 242 ¾ | 66 | 8 | |
| 22 | D. Dodge | Dodge | U | 3 | UP | Own | SP | F ½ | 6.3 | 26.3 | -R | Eat | Dodge | 32x6 | 32x6 | Smi | Fir | 26 | 26 | 206 ¾ | 66 | 8 | |
| 23 | D. B. L. | B. L. 51 | U | 4 | M-E | Wis 68C | R | F | 5.8 | ... | E-D | Shu 5550B | Ros | 36x6 | 36x6† | Bud | ... | 26 | 70 | 300 | 83 | 11 | |
| 24 | D. Own | Own 33 | U | 3 | Own | Own 33 | Ig | F | ... | ... | I-R | Own | Own | 36x4 | 36x6 | Own | ... | ... | ... | ... | ... | ... | |
| 25 | D. Own | Own 53 | U | 4 | Own | Own 53 | Ig | F | ... | ... | I-F | Own | Own | 36x6* | 36x6† | Bud | ... | 34½ | ... | ... | ... | ... | |
| 26 | D. B. L. | B. L. 35 | U | 4 | Spi | Wis 60B | R | F | 5.8 | 19.0 | -R | Shu 610 | Ros | 34x7* | 34x7* | Whi | Gdy | 24 | ... | 252 | 76 | 8 | |
| 27 | D. B. L. | B. L. 31 | U | 3 | Sne | Sal D | Be | F ½ | 7.7 | 27.6 | E-R | Sal | Gem | 34x5 | 34x5 | Ind | Fir | 29 | 27 | 220 | 70 | 11 | |
| 28 | D. B. L. | B. L. 31 | U | 3 | Spi | She | W | F | 5.5 | 26.4 | I-R | Shu 5550B | Ros | 32x6 | 32x6† | Bud | ... | 25 | 28 | 262 | 86 | 9 | |
| 29 | D. Own | Own AB | U | 4 | Spi | Own AB | R | F | a6.7 | 21.5 | I-R | Own AB | Own | 36x6* | 36x6* | Bud | ... | 28¾ | 32½ | 310 | 84 | 10¼ | |
| 30 | D. Own | Own AB | U | 4 | Spi | Own AB | R | F | a6.7 | 21.5 | I-R | Own AB | Own | 32x6* | 32x6* | Bud | ... | 24¾ | 28¾ | 304 | 88 | 8¾ | |
| 31 | ... | Cam | A | 4 | U-M | Fli | SP | F ½ | 5.3 | 22.6 | ... | Fli | Lav | 30x5 | 30x5† | StM | Fir | 24 | 27 | 244½ | 75 | 7½ | |
| 32 | D. Ful | Ful GU7 | U | 4 | Spi | Wal 25A | R | F ½ | 7.6 | 37.0 | -R | Shu 610 | Ros | 36x6 | 40x8 | StM | Fir | 26 | 33½ | ... | ... | ... | |
| 33 | D. Det | Cot AAU | U | 3 | Spi | Wis 40R | R | F ½ | ... | ... | I-R | Tim 1550 | Ros | 32x6* | 32x6† | Whi | Fir | 23½ | ... | ... | ... | ... | |
| 34 | D-Det | Cot AU | U | 4 | Spi | Wis 120K | R | F ½ | 6.1 | 32.0 | I-R | Tim 1550 | Ros | 36x6* | 36x6† | Ind | Fir | 26 | 30 | 256 | 86 | 10 | |
| 35 | D. B. L. | B. L. 30 | U | 3 | Pet | Tim 5512 | Wo | F ½ | 5.5 | 22.0 | E-R | Tim 1250 | Ros | 32x6 | 32x6 | Own | Gdy | 23½ | ... | ... | ... | ... | |
| 36 | D. B. L. | B. L. 51 | U | 4 | Pet | Tim 6410 | Wo | F ½ | 6.0 | 32.1 | I-R | Tim 1550 | Ros | 34x5* | 34x5† | Bud | ... | 24½ | ... | ... | ... | 8¼ | |
| 37 | D. B. L. | B. L. 51 | U | 4 | Pet | Tim 6511 | Wo | F | 6.0 | 32.1 | I-R | Tim 1550 | Ros | 36x6* | 36x6† | Bud | ... | 25½ | ... | ... | ... | 9 | |
| 38 | D. B. L. | B. L. 60 | U | 4 | Spi | Atl LC-IR | Ig | F | 7.0 | 28.0 | -R | Shu 650B | Ros | 34x6† | 34x6† | Ind | ... | 20½ | 25 | 333¾ | 90 | 8 | |
| 39 | Own | Own W | A | 4 | Spi | Own W | Wo | F | 6.0 | 32.0 | -D | Own | Own | 36x6 | 36x6† | Bud | ... | 28 | 40 | 282 | 89 ½ | 8 | |
| 40 | Own | Own W | A | 3 | Own | Own W | SP | D | 5.7 | 21.0 | E-R | Own W | Own | 32x6 | 32x6† | Bud | ... | 26¾ | 31 | 197 | 87 | 9 | |
| 41 | Ful | Ful | U | 3 | Spi | Eat | Ig | D | 6.2 | 25.0 | E-D | Eat | Jac | 34x7 | 34x7 | Van | Fir | 21 | ... | 270½ | 67½ | 7½ | |
| 42 | D. B. L. | B. L. | S | 4 | Spi | Tim | Wo | F | 7.7 | 31.0 | I-R | Tim | Gem | 36x5 | 36x5 | Arc | Fir | 29½ | 33 | 309 | 91 | 7 | |
| 43 | D. B. L. | B. L. | S | 4 | Spi | Tim | Wo | F | 7.7 | 31.0 | I-R | Tim | Gem | 36x5 | 36x5 | Arc | Fir | 29½ | 33 | 309 | 91 | 7 | |
| 44 | D. B. L. | B. L. 50 | U | 4 | Spi | Tim 6566 | Wo | F | 5.4 | 28.9 | I-R | Tim 1544B | Ros | 36x6* | 36x6† | Bud | ... | 34¾ | ... | ... | ... | 10½ | |
| 45 | B-L | B-L | U | ... | Blo | Tim 6212 | Wo | F | ... | ... | I-R | Tim 1550 | Ros | 32x6* | 32x6* | Bud | ... | ... | ... | ... | ... | ... | |
| 46 | Ful | Ful 4 | U | ... | ... | Wis SF | R | ... | ... | ... | ... | Tim | Jax | 32x6 | 32x6† | Bud | ... | ... | ... | ... | ... | ... | |
| 47 | Ful | Ful 4 | U | ... | ... | Cla SF | SP | ... | ... | ... | ... | Shu | Jax | 34x7 | 34x7 | ... | ... | ... | ... | ... | ... | ... | |
| 48 | D. B. L. | B. L. 55 | A | 4 | Spi | Tim 6566 | Wo | F | 6.0 | 32.1 | I-R | Col | Ros | 36x6* | 36x6† | Bud | Fir | 28 | 36 | 304 | 75½ | 9½ | |
| 49 | Own | Own 50A | U | 4 | Spi | Own 50A | R | F ½ | 5.6 | 23.3 | -R | Own 50A | Own | 36x6 | 36x6† | Bud | Fir | 28¾ | 36 | 274¾ | 81¾ | 9½ | |
| 50 | P. Own | Own 2 | S | 4 | ... | Own Z | Wo | F ½ | 6.2 | ... | I-F | Own | Own | 34x5† | 34x5† | ... | ... | ... | ... | ... | ... | ... | |

Joh—Johnson Kel—Kells
L—L-Head
Lav—Lavine
L-N—Leece-Neville
Lon—Long
M&E—Merchant & Evans
McC—McCord
Mot—Motor Wheel Corp.
N-E—North-East
NP—No Provision
Opt—Optional
P—Single Plate Pet—Peters

PC—Pressure to all Crankshaft
& connecting Rod Bearings—
Splash to other parts
Pol—Prest-O-Lite
R—Double Reduction
Ros—Ross
Rem—Remy
R&V—R & V Knight
Sal—Salisbury
Sew—Sewell
Sne—Snead
SP—Spiral Bevel

S—Separate Unit
Spi—Spicer
She—Sheldon
Spa—Sparton
STM—St. Marys
Shu—Shuler
Ste—Stewart
Str—Stromberg
Sp—Splash
Tim—Timken
U—Unit with Engine
U. P.—Universal

Van—Van Motor Wheels
V—Vacuum
Wal—Walker
Whi—Whitcomb
Wes—Westinghouse
Wil—Willard
Wis—Wisconsin
Wis—Wisconsin
Wo—Worm
X—Sleeve Valve
Yell—Yellow Zen—Zenith
a—Other ratios optional

MERCIAL CARS

| Name and Model Number | Total Weight Resting on Four Tires | Chassis Weight Exclusive of Battery | Minimum Load Capacity | Maximum Load Capacity | Chassis Price | Maximum Speed | Location of Battery | Mileage Per Charge | Motor | Controller | Speeds Forward | Drive | Rear Axle | Springs | Front Tires | Rear Tires | Steering Gear | Wheelbase | Per Cent of Weight on Rear Wheels |
|----------------------------|------------------------------------|-------------------------------------|-----------------------|-----------------------|---------------|---------------|---------------------|--------------------|-------|------------|----------------|-------|-----------|---------|-------------|------------|---------------|-----------|-----------------------------------|
| Lansden Marathon | 4400 | | | 4000 | 2250 | 13 | A | 50 | G-E | Own | 4 | C | D | SP | 36x4 | 36x3½† | Bay | 120 | 60 |
| Lansden Marathon | 5700 | | | 7000 | 2950 | 11 | A | 45 | G-E | Own | 4 | C | D | SP | 36x5 | 36x5† | Bay | 133 | 60 |
| Lansden Marathon | 7500 | | | 10000 | 3350 | 10 | A | 40 | G-E | Own | 4 | C | D | SP | 36x6 | 36x6† | Bay | 146 | 60 |
| O. B-B. | | | | | | 13 | | | G-E | Own | | C | D | | 36x4 | 36x3½† | Own | 107 | |
| O. B-C. | | | | | | 11 | | | G-E | Own | | C | D | | 36x5 | 36x4 | Own | 135 | |
| O. B-D. | | | | | | 10 | | | G-E | Own | | C | D | | 36x6 | 36x5 | Own | 143 | |
| Steinmetz 10. | 2000 | | | | | 16 | H&S | 52 | Diehl | Own | 4 | R | Russ | Shel | 32x4½ | 32x4½ | Lav | 106 | 60 |
| Steinmetz 15. | 2300 | | | | | 16 | H&S | 55 | Diehl | Own | 4 | R | Russ | Shel | 33x5 | 33x5 | Lav | 114 | 60 |
| Walker 12. | 1900 | | | 1000 | | 15 | H&S | 50 | G-E | Own | 4 | | Tim | Det | 32x3 | 32x3½ | Ross | 104 | 66 |
| Walker 15. | 2800 | | | 1500 | | 14 | A | 50 | West | West | 5 | Own | Own | Math | 34x3 | 36x3½ | Ross | 94 | 66 |
| Walker 22. | 3000 | | | 2000 | | 13 | A | 50 | West | West | 5 | Own | Own | Math | 34x3½ | 36x4 | Ross | 101 | 66 |
| Walker 42. | 4200 | | | 4000 | | 13 | A | 50 | West | West | 5 | Own | Own | Math | 36x4 | 36x6 | Ross | 114 | 66 |
| Walker P. | 6000 | | | 7000 | | 11 | A | 40 | West | West | 5 | Own | Own | Math | 36x5 | 38x5† | Ross | 131 | 66 |
| Walker N. | 6700 | | | 10000 | | 10 | A | 40 | West | West | 5 | Own | Own | Math | 36x6 | 38x6† | Ross | 141 | 66 |
| Walter HD. | 6800 | 2300 | | 2000 | 2200 | 16 | A | 60 | Diehl | G-E | 5 | B | | | 32x3½ | 32x4 | Ross | 98 | 60 |
| Walter EN. | 13200 | 4400 | | 5000 | 3100 | 15 | A | 50 | G-E | G-E | 5 | Own | D | | 36x4 | 36x7 | Gem | 114 | 60 |
| Walter EL. | 16800 | 7000 | | 7000 | 3700 | 13½ | A | 50 | G-E | G-E | 5 | Own | D | | 36x5 | 36x4 | Gem | 132 | 60 |
| Walter ES. | 23600 | 5200 | | 11000 | 4500 | 12 | A | 50 | G-E | G-E | 5 | Own | D | | 36x6 | 40x6 | Ross | 150 | 70 |
| Walter ER. | 28400 | 7500 | | 15000 | 4800 | 11 | A | 50 | G-E | G-E | 5 | Own | D | | 36x7 | 40x7 | Ross | 150 | 70 |
| Ward A-211. | 4500 | 1650 | 550 | 1150 | | 15 | S | 75 | G-E | Own | 4 | W | Shel | Shel | 32x4* | 33x4½* | Own | 88 | 56 |
| Ward B-222. | 6000 | 2300 | 1010 | 1700 | | 14 | S | 84 | G-E | Own | 4 | W | Shel | Shel | 32x3½ | 32x4 | Own | 91 | 62 |
| Ward C-211. | 8000 | 2670 | 2170 | 2880 | | 13 | S | 65 | G-E | Own | 4 | W | Shel | Shel | 32x3½ | 34x5 | Own | 96 | 64 |
| Ward E-211. | 12000 | 3570 | 4480 | 5430 | | 12½ | S | 56½ | G-E | Own | 4 | W | Shel | Shel | 34x4 | 36x6 | Own | 108 | 65 |
| Ward G-211. | 16000 | 4500 | 6560 | 7760 | | 11 | S | 44 | G-E | Own | 5 | W | Shel | Shel | 36x5 | 36x8 | Own | 120 | 68 |
| Ward J-211. | 22500 | 6630 | 8580 | 11200 | | 10 | S | 39½ | G-E | Own | 5 | W | Shel | Shel | 36x6 | 36x10 | Own | 136 | 70 |
| Ward M-211. | 30000 | 8430 | 13780 | 15920 | | 9 | S | 36 | G-E | Own | 5 | W | Shel | Shel | 36x7 | 36x7† | Own | 152 | 70 |

Replacement Table—Corrected Monthly

Including Piston Ring Sizes, Carburetor Sizes, Hose Sizes, Fan Belt Sizes, Brake Lining Sizes and Truck Frame Dimensions

* Note: Under Carburetor Inlet Diameter Will be Found Either the Size of Main Air Intake or the Gasoline Fuel Line
Fan Belt Type: V—V-Shape, F—Flat, R—Round

| NAME, MODEL AND TONNAGE | ENGINE | | | | | | | | | | BRAKE LINING | | | | FRAME | | | | | | | |
|-----------------------------|--------------|-------|-----------------|----------------|------------------------|--------|------------|--------|----------|--------|--------------|-----------|---------------|--------|--------|-----------|---------------|--|----------|----------|--------------------------------------|----|
| | Piston Rings | | Carburetor | | Upper Hose | | Lower Hose | | Fan Belt | | Service | | Emergency | | Length | | Width | | | | | |
| | No. per Cyl. | Width | Outlet Diameter | Inlet Diameter | Vertical or Horizontal | Length | Width | Length | Width | Length | Width | Thickness | No. of Pieces | Length | Width | Thickness | No. of Pieces | Back of Driver's Seat to Center of Rear Axle | Over All | Over All | Clearance at Lowest Point of Chassis | |
| Ace 40-1½ | 3 | 1½ | 1 | 1 | V | 7 | 1½ | 8 | 1½ | 40½ | 2 | F | 12 | 3½ | 14 | 4 | 4 | 122½ | 76½ | 215½ | 32 | 9 |
| Ace 60-3 | 3 | 1½ | 1 | 1 | V | 10 | 2 | 15 | 1½ | 42½ | 2 | F | 12 | 3½ | 14 | 4 | 4 | 122½ | 76½ | 215½ | 32 | 9 |
| Ace 20L-1½ | 3 | 1½ | 1 | 1 | V | 7 | 1½ | 8 | 1½ | 40½ | 2 | F | 12 | 3½ | 14 | 4 | 4 | 122½ | 76½ | 215½ | 32 | 9 |
| Ace 40-2 | 4 | 1½ | 1 | 1 | V | 8 | 1½ | 11 | 1½ | 40 | 2 | F | 12 | 3½ | 14 | 4 | 4 | 122½ | 76½ | 215½ | 32 | 9 |
| Ace 40L-2 | 4 | 1½ | 1 | 1 | V | 11½ | 1½ | 12½ | 1½ | 39½ | 2 | F | 12 | 3½ | 14 | 4 | 4 | 122½ | 76½ | 215½ | 32 | 9 |
| Ace 60-3 | 4 | 1½ | 1 | 1 | V | 11½ | 1½ | 12½ | 1½ | 39½ | 2 | F | 13 | 3½ | 14 | 4 | 4 | 122½ | 76½ | 215½ | 32 | 9 |
| Ace 60L-3 | 4 | 1½ | 1 | 1 | V | 12½ | 1½ | 12½ | 1½ | 34½ | 2 | F | 13 | 3½ | 14 | 4 | 4 | 122½ | 76½ | 215½ | 32 | 9 |
| Ace K (Bus) | 3 | 1½ | 1 | 1 | V | 10 | 1½ | 12 | 1½ | 41½ | 2 | F | 15½ | 3½ | 14 | 4 | 4 | 122½ | 76½ | 215½ | 32 | 9 |
| Ace 90-4½ | 4 | 1½ | 1 | 1 | V | 10 | 1½ | 10 | 1½ | 40½ | 2 | F | 15½ | 3½ | 14 | 4 | 4 | 122½ | 76½ | 215½ | 32 | 9 |
| Ace 90L-4½ | 4 | 1½ | 1 | 1 | V | 10 | 1½ | 10 | 1½ | 40½ | 2 | F | 15½ | 3½ | 14 | 4 | 4 | 122½ | 76½ | 215½ | 32 | 9 |
| Ace 125-6½ | 4 | 1½ | 1 | 1 | V | 10 | 1½ | 10 | 1½ | 40½ | 2 | F | 15½ | 3½ | 14 | 4 | 4 | 122½ | 76½ | 215½ | 32 | 9 |
| American-LaFrance 2R | 3 | 1½ | 1 | 1 | V | 11½ | 1½ | 9 | 1½ | 40½ | 2 | F | 17 | 3½ | 14 | 4 | 4 | 132 | 81 | 244½ | 33 | 10 |
| American-LaFrance 2R | 3 | 1½ | 1 | 1 | V | 11½ | 1½ | 9 | 1½ | 40½ | 2 | F | 17 | 3½ | 14 | 4 | 4 | 132 | 81 | 244½ | 33 | 10 |
| American-LaFrance 2R | 3 | 1½ | 1 | 1 | V | 11½ | 1½ | 9 | 1½ | 40½ | 2 | F | 17 | 3½ | 14 | 4 | 4 | 132 | 81 | 244½ | 33 | 10 |
| American-LaFrance 3R | 3 | 1½ | 1 | 1 | V | 11½ | 1½ | 9 | 1½ | 42 | 2 | F | 21 | 4 | 14 | 4 | 4 | 144½ | 89½ | 244½ | 35 | 10 |
| American-LaFrance 3R | 3 | 1½ | 1 | 1 | V | 11½ | 1½ | 9 | 1½ | 42 | 2 | F | 21 | 4 | 14 | 4 | 4 | 144½ | 89½ | 244½ | 35 | 10 |
| American-LaFrance 3R | 3 | 1½ | 1 | 1 | V | 11½ | 1½ | 9 | 1½ | 42 | 2 | F | 21 | 4 | 14 | 4 | 4 | 144½ | 89½ | 244½ | 35 | 10 |
| American-LaFrance 5R | 3 | 1½ | 1 | 1 | V | 11½ | 1½ | 9 | 1½ | 42 | 2 | F | 21 | 4 | 14 | 4 | 4 | 144½ | 89½ | 244½ | 35 | 10 |
| American-LaFrance 3R | 3 | 1½ | 1 | 1 | V | 11½ | 1½ | 9 | 1½ | 42 | 2 | F | 21 | 4 | 14 | 4 | 4 | 144½ | 89½ | 244½ | 35 | 10 |
| American-LaFrance 5R | 3 | 1½ | 1 | 1 | V | 11½ | 1½ | 9 | 1½ | 42 | 2 | F | 21 | 4 | 14 | 4 | 4 | 144½ | 89½ | 244½ | 35 | 10 |
| Armleder 30-1½ | 3 | 1½ | 1 | 1 | V | 10 | 2 | 16½ | 1½ | 33½ | 1½ | F | 11 | 3½ | 14 | 4 | 4 | 122½ | 76½ | 215½ | 32 | 9 |
| Armleder 50-2½ | 4 | 1½ | 1 | 1 | V | 12 | 2 | 17½ | 1½ | 35½ | 2 | F | 13 | 3½ | 14 | 4 | 4 | 122½ | 76½ | 215½ | 32 | 9 |
| Atterbury 24-R | 4 | 1½ | 1 | 1 | V | 10½ | 1½ | 16 | 1½ | 40½ | 1½ | F | 13 | 3½ | 14 | 4 | 4 | 129½ | 78½ | 225 | 34 | 9 |
| Atterbury 22C-2½ | 4 | 1½ | 1 | 1 | V | 10½ | 1½ | 16 | 1½ | 40½ | 1½ | F | 13 | 3½ | 14 | 4 | 4 | 129½ | 78½ | 225 | 34 | 9 |
| Atterbury 22D-3½ | 4 | 1½ | 1 | 1 | V | 10½ | 1½ | 16 | 1½ | 40½ | 1½ | F | 13 | 3½ | 14 | 4 | 4 | 129½ | 78½ | 225 | 34 | 9 |
| Atterbury 24E | 4 | 1½ | 1 | 1 | V | 10½ | 1½ | 16 | 1½ | 40½ | 1½ | F | 13 | 3½ | 14 | 4 | 4 | 129½ | 78½ | 225 | 34 | 9 |
| Autocar XXI-F-1½ | 4 | 1½ | 1 | 1 | V | 5 | 1½ | 9½ | 1½ | 40½ | 2 | F | 16½ | 2½ | 14 | 4 | 4 | 119½ | 76 | 211½ | 34 | 9 |
| Autocar XXI-G-1½ | 4 | 1½ | 1 | 1 | V | 5 | 1½ | 9½ | 1½ | 40½ | 2 | F | 16½ | 2½ | 14 | 4 | 4 | 119½ | 76 | 211½ | 34 | 9 |
| Autocar XXVI-M4-6 | 4 | 1½ | 1 | 1 | V | 3½ | 1½ | 3½ | 1½ | 40½ | 2 | F | 23½ | 2½ | 14 | 4 | 4 | 139½ | 80½ | 223½ | 34½ | 10 |
| Autocar XXVI-L4-6 | 3 | 1½ | 1 | 1 | V | 3½ | 1½ | 3½ | 1½ | 40½ | 2 | F | 23½ | 2½ | 14 | 4 | 4 | 139½ | 80½ | 223½ | 34½ | 10 |
| Autocar XXVII-H3 | 3 | 1½ | 1 | 1 | V | 3½ | 1½ | 3½ | 1½ | 40½ | 2 | F | 20½ | 2 | 14 | 4 | 4 | 131½ | 76 | 213½ | 34½ | 10 |
| Autocar XXVII-K3 | 3 | 1½ | 1 | 1 | V | 3½ | 1½ | 3½ | 1½ | 40½ | 2 | F | 20½ | 2 | 14 | 4 | 4 | 131½ | 76 | 213½ | 34½ | 10 |
| Available J-H-1½ | 4 | 1½ | 1 | 1 | V | 11 | 1½ | 14 | 1½ | 40 | 2 | F | 48 | 2½ | 14 | 4 | 4 | 120 | 80½ | 201½ | 32 | 9 |
| Available J-H2 | 4 | 1½ | 1 | 1 | V | 11 | 1½ | 14 | 1½ | 40 | 2 | F | 48 | 2½ | 14 | 4 | 4 | 120 | 80½ | 201½ | 32 | 9 |
| Available J-H-2½ | 4 | 1½ | 1 | 1 | V | 11 | 1½ | 14 | 1½ | 40 | 2 | F | 48 | 2½ | 14 | 4 | 4 | 120 | 80½ | 201½ | 32 | 9 |
| Available J-H3½ | 4 | 1½ | 1 | 1 | V | 11 | 1½ | 14 | 1½ | 40 | 2 | F | 48 | 2½ | 14 | 4 | 4 | 120 | 80½ | 201½ | 32 | 9 |
| Available J-H5 | 3 | 1½ | 1 | 1 | V | 12 | 2 | 16 | 2 | 40 | 2 | F | 18 | 4 | 14 | 4 | 4 | 168 | 106½ | 254½ | 36 | 9 |
| Besemer G-1 | 3 | 1½ | 1 | 1 | V | 11½ | 1½ | 10 | 1½ | 42 | 2 | V | 46 | 2½ | 14 | 4 | 4 | 98½ | 58½ | 182½ | 34 | 10 |
| Besemer H-2-1½ | 3 | 1½ | 1 | 1 | V | 11½ | 1½ | 10 | 1½ | 42 | 2 | V | 46 | 2½ | 14 | 4 | 4 | 98½ | 58½ | 182½ | 34 | 10 |
| Besemer J2-2½ | 3 | 1½ | 1 | 1 | V | 11½ | 1½ | 10 | 1½ | 42 | 2 | V | 46 | 2½ | 14 | 4 | 4 | 98½ | 58½ | 182½ | 34 | 10 |
| Besemer K2-4 | 3 | 1½ | 1 | 1 | V | 11½ | 1½ | 10 | 1½ | 42 | 2 | V | 46 | 2½ | 14 | 4 | 4 | 98½ | 58½ | 182½ | 34 | 10 |
| Bethlehem KN-1 | 3 | 1½ | 1 | 1 | V | 8½ | 1½ | 9½ | 1½ | 40½ | 2 | F | 51 | 2½ | 14 | 4 | 4 | 116½ | 74 | 208½ | 34½ | 9 |
| Bethlehem GN-2 | 3 | 1½ | 1 | 1 | V | 8½ | 1½ | 9½ | 1½ | 40½ | 2 | F | 51 | 2½ | 14 | 4 | 4 | 116½ | 74 | 208½ | 34½ | 9 |
| Bethlehem L | 3 | 1½ | 1 | 1 | V | 8½ | 1½ | 9½ | 1½ | 40½ | 2 | F | 51 | 2½ | 14 | 4 | 4 | 116½ | 74 | 208½ | 34½ | 9 |
| Betz J3-1 | 3 | 1½ | 1 | 1 | V | 12 | 1½ | 17 | 1½ | 33½ | 1½ | F | 12 | 3½ | 14 | 4 | 4 | 122½ | 76½ | 215½ | 32 | 9 |
| Betz D3-2½ | 3 | 1½ | 1 | 1 | V | 12 | 1½ | 17 | 1½ | 33½ | 1½ | F | 12 | 3½ | 14 | 4 | 4 | 122½ | 76½ | 215½ | 32 | 9 |
| Brinton C-1½ | 3 | 1½ | 1 | 1 | V | 11 | 1½ | 13 | 1½ | 33 | 1½ | F | 13 | 3½ | 14 | 4 | 4 | 118 | 72 | 188½ | 32 | 9 |
| Brinton D-2½ | 3 | 1½ | 1 | 1 | V | 11 | 1½ | 13 | 1½ | 33 | 1½ | F | 13 | 3½ | 14 | 4 | 4 | 118 | 72 | 188½ | 32 | 9 |
| Brockway S-12-1½ | 4 | 1½ | 1 | 1 | V | 10½ | 1½ | 13 | 1½ | 34 | 1½ | F | 13 | 3½ | 14 | 4 | 4 | 142 | 89½ | 223½ | 34 | 10 |
| Brockway K-11-2½ | 4 | 1½ | 1 | 1 | V | 6½ | 1½ | 13 | 1½ | 34 | 1½ | F | 15½ | 3½ | 14 | 4 | 4 | 176 | 102½ | 175 | 36 | 9 |
| Brockway R-12-3½ | 4 | 1½ | 1 | 1 | V | 9½ | 1½ | 14 | 1½ | 34 | 1½ | F | 17½ | 4 | 14 | 4 | 4 | 176 | 102½ | 175 | 36 | 9 |
| Brockway T-6-5 | 4 | 1½ | 1 | 1 | V | 13 | 2 | 22 | 2 | 40½ | 2 | F | 21 | 4 | 14 | 4 | 4 | 124 | 82½ | 224 | 34 | 10 |
| Buffalo 9, 6 | 4 | 1½ | 1 | 1 | V | 7 | 1½ | 13 | 1½ | 41½ | 2 | F | 21 | 4 | 14 | 4 | 4 | 124 | 82½ | 224 | 34 | 10 |
| Casco A-1 | 4 | 1½ | 1 | 1 | V | 12 | 1½ | 14½ | 1½ | 34½ | 1½ | F | 48½ | 2½ | 14 | 4 | 4 | 104 | 61 | 192½ | 34 | 10 |
| Chevrolet Sup. Com. Chassis | 3 | 1½ | 1 | 1 | V | 7½ | 1½ | 5½ | 1½ | 29½ | 1½ | V | 37 | 2 | 14 | 4 | 4 | 112 | 73½ | 207 | 34 | 10 |
| Chevrolet Utility Exp. | 3 | 1½ | 1 | 1 | V | 7½ | 1½ | 5½ | 1½ | 29½ | 1½ | V | 37 | 2 | 14 | 4 | 4 | 112 | 73½ | 207 | 34 | 10 |
| Clinton 20-1½ | 4 | 1½ | 1 | 1 | V | 11 | 1½ | 17½ | 1½ | 36½ | 2 | F | 13 | 3½ | 14 | 4 | 4 | 131 | 81 | 233 | 34½ | 9 |
| Clinton 45-2 | 4 | 1½ | 1 | 1 | V | 11 | 1½ | 17½ | 1½ | 36½ | 2 | F | 13 | 3½ | 14 | 4 | 4 | 131 | 81 | 233 | 34½ | 9 |
| Clinton 65-3 | 4 | 1½ | 1 | 1 | V | 11 | 1½ | 17½ | 1½ | 36½ | 2 | F | 13 | 3½ | 14 | 4 | 4 | 131 | 81 | 233 | 34½ | 9 |
| Clinton 90-90M-4 | 4 | 1½ | 1 | 1 | V | 11 | 1½ | 17½ | 1½ | 36½ | 2 | F | 13 | 3½ | 14 | 4 | 4 | 131 | 81 | 233 | 34½ | 9 |
| Clinton 120L-120LM-5 | 4 | 1½ | 1 | 1 | V | 12 | 2 | 18 | 1½ | 41 | 2 | F | 18 | 4 | 14 | 4 | 4 | 130½ | 91 | 242 | 38 | 10 |
| Clinton 120S-120SM-5-7 | 4 | 1½ | 1 | 1 | V | 12 | 2 | 18 | 1½ | 41 | 2 | F | 18 | 4 | 14 | 4 | 4 | 130½ | 91 | 242 | 38 | 10 |
| Clydesdale 120B-5-5-6 | 3 | 1½ | 1 | 1 | V | 9 | 2 | 18½ | 2 | 46½ | 2 | F | 18 | 4 | 14 | 4 | 4 | 131 | 91 | 242 | 38 | 10 |
| Clydesdale 90-3½-4½ | 3 | 1½ | 1 | 1 | V | 9 | 2 | 18½ | 2 | 46½ | 2 | F | 18 | 4 | 14 | 4 | 4 | 131 | 91 | 242 | 38 | 10 |
| Clydesdale 65EX 2½-3 | 3 | 1½ | 1 | 1 | V | 9 | 2 | 18½ | 2 | 46½ | 2 | F | 18 | 4 | 14 | 4 | 4 | 131 | 91 | 242 | 38 | 10 |
| Clydesdale 65X-2½-3 | 3 | 1½ | 1 | 1 | V | 11 | 1½ | 12 | 2 | 41 | 1½ | F | 11 | 3½ | 14 | 4 | 4 | 117 | 79 | 235½ | 34 | 10 |
| Clydesdale 42-1½-2 | 3 | 1½ | 1 | 1 | V | 15 | 2 | 12 | 2 | 41 | 1½ | F | 11 | 3½ | 14 | 4 | 4 | 117 | 79 | 235½ | 34 | 10 |
| Clydesdale 20-1-1½ | 3 | 1½ | 1 | 1 | V | 15 | 2 | 12 | 2 | 41 | 1½ | F | 11 | 3½ | 14 | 4 | 4 | 117 | 79 | 235½ | 34 | 10 |
| Clydesdale 18-¾-1½ | 3 | 1½ | 1 | 1 | V | 9 | 2 | 9 | 2 | 41 | 1½ | F | 11 | 3½ | 14 | 4 | | | | | | |

Replacement Table—Continued

| NAME, MODEL AND TONNAGE | ENGINE | | | | | | | | | | BRAKE LINING | | | | | | | | FRAME | | | | | | |
|-------------------------|--------------|-------|-----------------|----------------|------------------------|--------|------------|--------|----------|--------|--------------|-------|--------|-------|-----------|---------------|--------|-------|-----------|---------------|-----------------------|--------------------------------------|----------|----------|--------------------------------------|
| | Piston Rings | | Carburetor | | Upper Hose | | Lower Hose | | Fan Belt | | Service | | | | Emergency | | | | Length | | Width | | | | |
| | No. per Cyl. | Width | Outlet Diameter | Inlet Diameter | Vertical or Horizontal | Length | Width | Length | Width | Length | Width | Type | Length | Width | Thickness | No. of Pieces | Length | Width | Thickness | No. of Pieces | Back of Driver's Seat | Driver's Seat to Center of Rear Axle | Over All | Over All | Clearance at Lowest Point of Chassis |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Columbia G-2½ | 3 | 1 | 1¼ | 1 | V | 10 | 1¼ | 12 | 1¼ | 39 | 1¼ | F | 26 | 2 | 1¼ | 4 | 26 | 2 | 1¼ | 4 | Opt | Opt | Opt | 32½ | 9 |
| Columbia K-3 | 3 | 1 | 1¼ | 1 | V | 11 | 1¼ | 13 | 1¼ | 42 | 1¼ | F | 26 | 2 | 1¼ | 4 | 26 | 2 | 1¼ | 4 | Opt | Opt | Opt | 32½ | 9 |
| Commerce 11-2000 | 3 | 1 | 1¼ | 1 | V | 10 | 1¼ | 10 | 1¼ | 44 | 1¼ | F | 26 | 2 | 1¼ | 4 | 48½ | 2 | 1¼ | 4 | 117 | 75 | 210 | 34 | 9 |
| Commerce 14B-3000 | 4 | 1 | 1¼ | 1 | V | 10 | 1¼ | 9½ | 1¼ | 39½ | 1¼ | F | 11 | 1 | 1¼ | 4 | 11 | 1 | 1¼ | 4 | 132 | 84 | 228½ | 34 | 8½ |
| Commerce 25B-3000 | 4 | 1 | 1¼ | 1 | V | 9½ | 1¼ | 15½ | 1¼ | 42 | 1¼ | F | 13 | 3 | 1¼ | 4 | 13 | 3 | 1¼ | 4 | 117 | 75 | 210 | 34 | 12½ |
| Concord E-1 | 4 | 1 | 1¼ | 1 | H | 7 | 1¼ | 9 | 1¼ | 33½ | 1¼ | F | 12 | 3 | 1¼ | 4 | 12 | 3 | 1¼ | 4 | 117 | 75 | 210 | 34 | 32½ |
| Concord G-2 | 4 | 1 | 1¼ | 1 | H | 7 | 1¼ | 9 | 1¼ | 33½ | 1¼ | F | 12 | 3 | 1¼ | 4 | 12 | 3 | 1¼ | 4 | 117 | 75 | 210 | 34 | 32½ |
| Concord H-2 | 4 | 1 | 1¼ | 1 | H | 7 | 1¼ | 9 | 1¼ | 33½ | 1¼ | F | 12 | 3 | 1¼ | 4 | 12 | 3 | 1¼ | 4 | 117 | 75 | 210 | 34 | 32½ |
| Concord J-2½ | 4 | 1 | 1¼ | 1 | H | 7 | 1¼ | 9 | 1¼ | 33½ | 1¼ | F | 12 | 3 | 1¼ | 4 | 12 | 3 | 1¼ | 4 | 117 | 75 | 210 | 34 | 32½ |
| Concord JL-3 | 4 | 1 | 1¼ | 1 | H | 7 | 1¼ | 9 | 1¼ | 33½ | 1¼ | F | 12 | 3 | 1¼ | 4 | 12 | 3 | 1¼ | 4 | 117 | 75 | 210 | 34 | 32½ |
| Corbitt S-¾ | 3 | 1 | 1¼ | 1 | H | 8 | 2 | 2 | 2 | 41 | 1¼ | F | 16½ | 1¼ | 1¼ | 4 | 16½ | 1¼ | 1¼ | 4 | 103 | 59 | 196 | 34 | 11½ |
| Corbitt E-1 | 3 | 1 | 1¼ | 1 | H | 9 | 2 | 2 | 2 | 41 | 1¼ | F | 16½ | 1¼ | 1¼ | 4 | 16½ | 1¼ | 1¼ | 4 | 104 | 62 | 198 | 34 | 11½ |
| Corbitt D-1½ | 3 | 1 | 1¼ | 1 | H | 11 | 1¼ | 15 | 1¼ | 46 | 1¼ | F | 18 | 2 | 1¼ | 4 | 18 | 2 | 1¼ | 4 | 110 | 72 | 206 | 34 | 10 |
| Corbitt C-2 | 3 | 1 | 1¼ | 1 | H | 13 | 1¼ | 15 | 1¼ | 46 | 1¼ | F | 22½ | 2¼ | 1¼ | 4 | 22½ | 2¼ | 1¼ | 4 | 132 | 78 | 230 | 35 | 10½ |
| Corbitt B-2½ | 3 | 1 | 1¼ | 1 | H | 13 | 1¼ | 15 | 1¼ | 46 | 1¼ | F | 22½ | 2¼ | 1¼ | 4 | 22½ | 2¼ | 1¼ | 4 | 136 | 78 | 232 | 35 | 10½ |
| Corbitt R-2½-3 | 3 | 1 | 1¼ | 1 | H | 14 | 1¼ | 8 | 1¼ | 46 | 1¼ | F | 22½ | 2¼ | 1¼ | 4 | 22½ | 2¼ | 1¼ | 4 | 153 | 92 | 254 | 35 | 10½ |
| Corbitt A-3½-4 | 3 | 1 | 1¼ | 1 | H | 14 | 1¼ | 8 | 1¼ | 46 | 1¼ | F | 21 | 4 | 1¼ | 2 | 21 | 4 | 1¼ | 2 | 168 | 106 | 266 | 35 | 10½ |
| Corbitt AA-5 | 3 | 1 | 1¼ | 1 | H | 13 | 2 | 14 | 2 | 46 | 2 | F | 68½ | 3 | 1¼ | 2 | 68½ | 3 | 1¼ | 2 | 168 | 106 | 268 | 35 | 9 |
| Day-Elder AN-1½ | 3 | 1 | 1¼ | 1 | V | 6¾ | 1¼ | 7 | 1¼ | 34½ | 1¼ | F | 10 | 3 | 1¼ | 4 | 10 | 3 | 1¼ | 4 | 106½ | 62½ | 191 | 35 | ..... |
| Day-Elder BN-2 | 3 | 1 | 1¼ | 1 | V | 4 | 1¼ | 12½ | 1¼ | 41 | 1¼ | F | 11 | 3 | 1¼ | 4 | 11 | 3 | 1¼ | 4 | 120 | 78½ | 204½ | 34 | ..... |
| Day-Elder DN-2½ | 3 | 1 | 1¼ | 1 | V | 4 | 1¼ | 12½ | 1¼ | 41 | 1¼ | F | 11 | 3 | 1¼ | 4 | 11 | 3 | 1¼ | 4 | 132 | 72½ | 222½ | 34 | ..... |
| Day-Elder EN-3 | 3 | 1 | 1¼ | 1 | V | 10½ | 2 | 12 | 1¼ | 37 | 2 | F | 13 | 3 | 1¼ | 4 | 13 | 3 | 1¼ | 4 | 123½ | 77½ | 216 | 35 | ..... |
| Day-Elder FN-4 | 3 | 1 | 1¼ | 1 | V | 12½ | 2 | 12½ | 1¼ | 37 | 2 | F | 15 | 3 | 1¼ | 4 | 15 | 3 | 1¼ | 4 | 120½ | 81½ | 214½ | 35 | ..... |
| Day-Elder EN-5-6 | 1 | 1 | 1¼ | 1 | V | 12½ | 2 | 12½ | 1¼ | 38 | 2 | F | 17½ | 4 | 1¼ | 4 | 17½ | 4 | 1¼ | 4 | 154 | 94 | 253 | 37 | ..... |
| Diamond T-75-¼-1 | 3 | 1 | 1¼ | 1 | V | 8 | 1¼ | 10½ | 1¼ | 33½ | 1¼ | F | 22 | 2 | 1¼ | 4 | 22 | 2 | 1¼ | 4 | 90 | 57½ | 182½ | 34 | ..... |
| Diamond T-103-1-1¼ | 3 | 1 | 1¼ | 1 | V | 9 | 1¼ | 6 | 1¼ | 35 | 2 | F | 48 | 2 | 1¼ | 4 | 48 | 2 | 1¼ | 4 | 100 | ..... | ..... | 34 | ..... |
| Diamond T-11 | 3 | 1 | 1¼ | 1 | V | 9 | 1¼ | 6 | 1¼ | 35 | 2 | F | 11½ | 3 | 1¼ | 4 | 11½ | 3 | 1¼ | 4 | Opt | ..... | ..... | 34 | ..... |
| Diamond T-U2-2½ | 3 | 1 | 1¼ | 1 | V | 10 | 1¼ | 8 | 1¼ | 35 | 2 | F | 13½ | 3 | 1¼ | 4 | 13½ | 3 | 1¼ | 4 | Opt | ..... | ..... | 34 | ..... |
| Diamond TK-3½ | 3 | 1 | 1¼ | 1 | V | 10 | 1¼ | 2 | 1¼ | 35 | 2 | F | 15½ | 3 | 1¼ | 4 | 15½ | 3 | 1¼ | 4 | Opt | ..... | ..... | 37 | ..... |
| Diamond T-S-5 | 3 | 1 | 1¼ | 1 | V | 9 | 2 | 21 | 2 | 40½ | 2 | F | 18 | 4 | 1¼ | 4 | 18 | 4 | 1¼ | 4 | Opt | ..... | ..... | 37 | ..... |
| Diehl A | 4 | 1 | 1 | 1 | V | 11 | 1½ | 8 | 1½ | 42 | 1½ | F | 28 | 2½ | 1¼ | 2 | 27 | 2 | 1¼ | 2 | 90 | 48 | 174 | 11 | ..... |
| Dixon Model D | 4 | 1 | 1¼ | 1 | V | 11 | 1½ | 9 | 1½ | 42 | 1½ | F | 13 | 3 | 1¼ | 4 | 13 | 3 | 1¼ | 4 | 126 | 71 | 221½ | 34½ | 9½ |
| Dixon Model C | 4 | 1 | 1¼ | 1 | V | 12 | 1½ | 10 | 1½ | 42 | 1½ | F | 13 | 3 | 1¼ | 4 | 13 | 3 | 1¼ | 4 | Opt | 71 | 221½ | 34½ | 9½ |
| Dixon Model A | 4 | 1 | 1¼ | 1 | V | 12 | 1½ | 10 | 1½ | 42 | 1½ | F | 13 | 3 | 1¼ | 4 | 13 | 3 | 1¼ | 4 | Opt | 71 | 221½ | 34½ | 9½ |
| Dorris K-4-2½ | 3 | 1 | 1¼ | 1 | V | 2¼ | 1½ | 6¼ | 1½ | 42½ | 1½ | F | 13½ | 3 | 1¼ | 4 | 13½ | 3 | 1¼ | 4 | 142½ | 96½ | 233½ | 34 | 9 |
| Dorris K7-3½ | 3 | 1 | 1¼ | 1 | V | 2¼ | 1½ | 6¼ | 1½ | 42½ | 1½ | F | 15½ | 3 | 1¼ | 4 | 15½ | 3 | 1¼ | 4 | 178½ | 130½ | 270½ | 36 | 9 |
| Double Drive TT-3 | 4 | 1 | 1¼ | 1 | V | 12 | 1½ | 19 | 1½ | 34 | 2 | F | 8 | 4 | 1¼ | 4 | 18 | 4 | 1¼ | 4 | 132 | 100 | 216 | 34 | 9½ |
| Duplex G | 4 | 1 | 1¼ | 1 | V | 14 | 1½ | 16 | 1½ | 36 | 1½ | F | 11 | 2½ | 1¼ | 4 | 11 | 2½ | 1¼ | 4 | 102 | ..... | ..... | 34 | ..... |
| Duplex GH | 4 | 1 | 1¼ | 1 | V | 14 | 1½ | 16 | 1½ | 36 | 1½ | F | 19 | 2 | 1¼ | 4 | 19 | 2 | 1¼ | 4 | 112 | ..... | ..... | 34 | ..... |
| Duplex A | 3 | 1 | 1¼ | 1 | V | 14 | 1½ | 16 | 1½ | 36 | 1½ | F | 20 | 2¼ | 1¼ | 4 | 20 | 2¼ | 1¼ | 4 | 121 | ..... | ..... | 34 | ..... |
| Duplex AC | 3 | 1 | 1¼ | 1 | V | 14 | 1½ | 16 | 1½ | 36 | 1½ | F | 26 | 2 | 1¼ | 4 | 26 | 2 | 1¼ | 4 | 140 | ..... | ..... | 34 | ..... |
| Duplex E | 3 | 1 | 1¼ | 1 | V | 14 | 1½ | 16 | 1½ | 36 | 1½ | F | 10 | 2½ | 1¼ | 4 | 52 | 2½ | 1¼ | 4 | 128 | ..... | ..... | 40 | ..... |
| Duplex FD | 4 | 1 | 1¼ | 1 | V | 14 | 1½ | 16 | 1½ | 36 | 1½ | F | 26½ | 2 | 1¼ | 4 | 26½ | 2 | 1¼ | 4 | Opt | ..... | ..... | 34 | ..... |
| Eagle 100-2 | 4 | 1 | 1¼ | 1 | V | 14 | 2 | 16 | 1¼ | 36 | 1½ | ..... | 49 | 3 | 1¼ | 2 | 46 | 2 | 1¼ | 2 | Opt | ..... | ..... | 36 | ..... |
| Eagle 101-1¼ | 4 | 1 | 1¼ | 1 | V | 14 | 2 | 16 | 1¼ | 34 | 1½ | ..... | 21 | 2½ | 1¼ | 4 | 21 | 2½ | 1¼ | 4 | Opt | ..... | ..... | 31 | ..... |
| Eagle 104-2-3 | 4 | 1 | 1¼ | 1 | V | 14 | 2 | 16 | 1¼ | 36 | 1½ | ..... | 49½ | 3 | 1¼ | 2 | 46 | 2 | 1¼ | 2 | Opt | ..... | ..... | 32 | ..... |
| Fageol 1½-2 | 3 | 1 | 1¼ | 1 | V | 10 | 2½ | 20 | 2½ | 37½ | 1½ | F | 19½ | 1¼ | 1¼ | 2 | 19½ | 1¼ | 1¼ | 2 | 120 | ..... | ..... | 30 | ..... |
| Fageol 2½-3 | 3 | 1 | 1¼ | 1 | V | 10 | 2½ | 20 | 2½ | 37½ | 1½ | F | 13½ | 3 | 1¼ | 2 | 13½ | 3 | 1¼ | 2 | 141 | ..... | ..... | 34 | ..... |
| Fageol 3½-4 | 3 | 1 | 1¼ | 1 | V | 9 | 1½ | 17½ | 1½ | 40½ | 1½ | F | 15½ | 3 | 1¼ | 2 | 15½ | 3 | 1¼ | 2 | 159½ | ..... | ..... | 37½ | ..... |
| Fageol 5-6 | 3 | 1 | 1¼ | 1 | V | 9 | 1½ | 17½ | 1½ | 40½ | 1½ | F | 18 | 4 | 1¼ | 2 | 18 | 4 | 1¼ | 2 | 161½ | ..... | ..... | 37½ | ..... |
| Federal R-2-1 | 4 | 1 | 1¼ | 1 | V | 11 | 1½ | 12 | 1½ | 35 | 1½ | F | ..... | 1¼ | 1¼ | 4 | ..... | 1¼ | 1¼ | 4 | 110 | ..... | ..... | ..... | ..... |
| Federal S-21-1½ | 4 | 1 | 1¼ | 1 | V | 11 | 1½ | 12 | 1½ | 35 | 1½ | F | ..... | 1¼ | 1¼ | 4 | ..... | 1¼ | 1¼ | 4 | 118 | ..... | ..... | ..... | ..... |
| Federal S-22-1½ | 4 | 1 | 1¼ | 1 | V | 11 | 1½ | 12 | 1½ | 35 | 1½ | F | ..... | 1¼ | 1¼ | 4 | ..... | 1¼ | 1¼ | 4 | 118 | ..... | ..... | ..... | ..... |
| Federal U-2-2½ | 4 | 1 | 1¼ | 1 | V | 11 | 1½ | 12 | 1½ | 35 | 1½ | F | ..... | 1¼ | 1¼ | 4 | ..... | 1¼ | 1¼ | 4 | 134 | ..... | ..... | ..... | ..... |
| Federal WL-4 | 4 | 1 | 1¼ | 1 | V | 11 | 1½ | 12 | 1½ | 35 | 1½ | F | ..... | 1¼ | 1¼ | 4 | ..... | 1¼ | 1¼ | 4 | 154 | ..... | ..... | ..... | ..... |
| Federal X2-5 | 4 | 1 | 1¼ | 1 | V | 11 | 1½ | 12 | 1½ | 35 | 1½ | F | ..... | 1¼ | 1¼ | 4 | ..... | 1¼ | 1¼ | 4 | 15 | ..... | ..... | ..... | ..... |
| Federal Light Duty | 4 | 1 | 1¼ | 1 | V | 11 | 1½ | 12 | 1½ | 35 | 1½ | F | ..... | 1¼ | 1¼ | 4 | ..... | 1¼ | 1¼ | 4 | 86 | ..... | ..... | ..... | ..... |
| Federal Heavy Duty | 4 | 1 | 1¼ | 1 | V | 11 | 1½ | 12 | 1½ | 35 | 1½ | F | ..... | 1¼ | 1¼ | 4 | ..... | 1¼ | 1¼ | 4 | 99 | ..... | ..... | ..... | ..... |
| Ford T-1 | 3 | 1 | 1¼ | 1 | H | 4 | 2 | 2 | 2 | 26 | 1½ | R | 23½ | 1½ | 1¼ | 1 | 12 | 1½ | 1¼ | 1 | 60 | 123 | 23 | 9½ | ..... |
| Front Drive FT-1½ | 4 | 1 | 1¼ | 1 | H | 13½ | 2 | 15 | 2 | 33 | 2 | R | 13 | 4 | 1¼ | 1 | 15 | 4 | 1¼ | 1 | 132 | 98 | 204 | 34 | 10½ |
| Fulton C-2 | 4 | 1 | 1¼ | 1 | H | 13 | 2 | 15 | 2 | 37½ | 1½ | F | 50½ | 2 | 1¼ | 1 | 25 | 2½ | 1¼ | 1 | 120 | 73 | | | |

Replacement Table—Continued

| NAME, MODEL AND TONNAGE | ENGINE | | | | | | | | | | BRAKE LINING | | | | FRAME | | | |
|-------------------------------|--------------|--------------|-------|-----------------|----------------|------------------------|--------|------------|--------|----------|--------------|---------|--------|-----------|---------------|--------|-------|-------|
| | Piston Rings | Carburetor | | | | Upper Hose | | Lower Hose | | Fan Belt | | Service | | Emergency | | Length | | Width |
| | | No. per Cyl. | Width | Outlet Diameter | Inlet Diameter | Vertical or Horizontal | Length | Width | Length | Width | Type | Length | Width | Thickness | No. of Pieces | Length | Width | |
| Gramm-Bernstein 10 Sp'd-1 | 3 | 1 | 1 1/4 | 1 1/4 | V | 12 | 2 1/4 | 14 1/2 | 2 1/4 | 29 | 1 1/4 | F | 48 | 2 | 2 | 26 | 1 1/2 | 1 |
| Gramm-Bernstein 15-1 1/2-2 | 3 | 1 | 1 1/4 | 1 1/4 | V | 10 1/4 | 2 | 6 | 2 | 39 | 1 1/4 | F | 48 1/2 | 2 | 2 | 45 1/2 | 1 1/2 | 2 |
| Gramm-Bernstein 65-1 1/2-2 | 3 | 1 | 1 1/4 | 1 1/4 | V | 10 1/4 | 2 | 6 | 2 | 39 | 1 1/4 | F | 19 1/4 | 1 1/4 | 4 | 19 1/4 | 1 1/4 | 4 |
| Gramm-Bernstein 125-2 1/2 | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 4 1/2 | 1 1/2 | 9 | 1 1/2 | 32 | 2 | F | 8 | 5 | 2 | 45 | 2 | 2 |
| Gramm-Bernstein 30-3 | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 11 | 1 1/2 | 12 | 1 1/2 | 33 1/4 | 2 | F | 22 1/4 | 2 1/4 | 4 | 22 1/4 | 2 1/4 | 4 |
| Gramm-Bernstein 75P-3 1/2 | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 11 | 1 1/2 | 9 | 1 1/2 | 33 1/4 | 2 | F | 22 1/4 | 2 1/4 | 4 | 22 1/4 | 2 1/4 | 4 |
| Gramm-Bernstein 40-4 | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 11 | 1 1/2 | 9 | 1 1/2 | 33 1/4 | 2 | F | 22 1/4 | 2 1/4 | 4 | 22 1/4 | 2 1/4 | 4 |
| Gramm-Bernstein 50-5-6 | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 23 1/4 | 2 | 13 1/4 | 2 | 40 1/4 | 2 | F | 32 1/4 | 2 1/4 | 4 | 32 1/4 | 2 1/4 | 4 |
| Grass Premier 40A | 3 | 1 | 1 1/4 | 1 1/4 | V | 12 | 2 1/4 | 14 1/2 | 2 1/4 | 29 | 1 | F | 48 1/2 | 2 | 2 | 47 | 1 1/2 | 2 |
| Grass Premier 60A1 1/2 | 4 | 1 1/4 | 1 1/4 | 1 1/4 | V | 14 | 2 1/2 | 16 | 2 1/2 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Grass Premier 70A2 1/2 | 4 | 1 1/4 | 1 1/4 | 1 1/4 | V | 14 | 2 1/2 | 16 | 2 1/2 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Grass Premier 90A3 1/2 | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 11 | 1 1/2 | 11 | 1 1/2 | 40 | 1 1/2 | F | 15 1/2 | 3 1/4 | 4 | 15 1/2 | 3 1/4 | 4 |
| G. W. W. Super | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 8 | 1 1/2 | 17 1/2 | 1 1/2 | 37 1/2 | 1 1/4 | F | 49 | 2 1/2 | 2 | 47 | 1 1/2 | 2 |
| Harvey WOA-2 | 4 | 1 1/4 | 1 1/4 | 2 | V | 11 | 2 | 14 | 1 1/4 | 35 1/2 | 2 | F | 45 | 2 | 2 | 45 | 2 | 2 |
| Harvey WFB-2 1/2 | 4 | 1 1/4 | 1 1/4 | 2 | V | 11 | 2 | 14 | 1 1/4 | 35 1/2 | 2 | F | 50 | 2 1/4 | 2 | 50 | 2 1/4 | 2 |
| Harvey WHB-3 1/2 | 4 | 1 1/4 | 1 1/4 | 2 | V | 12 | 2 | 14 | 1 1/4 | 36 1/2 | 2 | F | 20 3/4 | 4 | 4 | 20 3/4 | 4 | 4 |
| Harvey WFT-6 | 4 | 1 1/4 | 1 1/4 | 2 | V | 11 | 2 | 14 | 1 1/4 | 36 1/2 | 2 | F | 50 | 2 1/4 | 2 | 50 | 2 1/4 | 2 |
| Harvey WHT-10 | 4 | 1 1/4 | 1 1/4 | 2 | V | 12 | 2 | 14 | 1 1/4 | 36 1/2 | 2 | F | 20 3/4 | 4 | 4 | 20 3/4 | 4 | 4 |
| Hawkeye O | 4 | 1 1/4 | 1 1/4 | 2 | V | 12 | 2 | 9 | 1 1/4 | ... | 1 1/2 | F | ... | ... | ... | ... | ... | ... |
| Hawkeye K | 4 | 1 1/4 | 1 1/4 | 1 | V | 12 | 2 | 9 | 1 1/4 | ... | 2 | F | ... | ... | ... | ... | ... | ... |
| Hawkeye M | 4 | 1 1/4 | 1 1/4 | 1 | V | 12 | 2 1/4 | 9 | 1 1/4 | ... | 2 1/2 | F | ... | ... | ... | ... | ... | ... |
| Hawkeye N | 4 | 1 1/4 | 1 1/4 | 1 1/4 | V | 14 | 2 1/2 | 12 | 1 1/2 | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Indiana 15-1 1/2 | 3 | 1 1/4 | 1 1/4 | ... | ... | 17 | 1 1/4 | 14 | 1 1/4 | 38 1/2 | 1 | F | 19 | 2 | 4 | 19 | 2 | 4 |
| Indiana 20-2 | 3 | 1 1/4 | 1 1/4 | ... | ... | 6 | 1 1/4 | 13 | 1 1/4 | 26 1/2 | 1 1/2 | F | 22 1/4 | 2 1/4 | 4 | 22 1/4 | 2 1/4 | 4 |
| Indiana 25-2 1/2 | 3 | 1 1/4 | 1 1/4 | ... | ... | 6 | 1 1/4 | 13 | 1 1/4 | 26 1/2 | 1 1/2 | F | 22 1/4 | 2 1/4 | 4 | 22 1/4 | 2 1/4 | 4 |
| Indiana 35-3 1/2 | 3 | 1 1/4 | 1 1/4 | ... | ... | 6 | 1 1/4 | 13 | 1 1/4 | 26 1/2 | 1 1/2 | F | 20 1/4 | 4 | 4 | 20 1/4 | 4 | 4 |
| Indiana 51-5 | 3 | 1 1/4 | 1 1/4 | ... | ... | 10 | 1 1/4 | 17 1/2 | 1 1/4 | 40 1/2 | 1 | F | 65 1/2 | 3 | 2 | 65 1/2 | 3 | 2 |
| Inter'l S-2000 lbs.-Sp. Tr. | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 9 1/4 | 2 1/4 | 17 1/2 | 2 1/4 | 30 1/4 | 1 1/4 | F | 35 | 2 1/4 | 2 | 36 | 2 | 2 |
| International 33-3000 lbs. | 4 | 1 1/4 | 1 1/4 | 1 1/4 | V | 6 1/4 | 2 1/2 | 6 1/4 | 2 1/2 | 43 1/2 | 1 1/2 | F | 43 1/2 | 2 1/4 | 2 | 50 1/2 | 2 1/4 | 2 |
| International 43-4000 lbs. | 4 | 1 1/4 | 1 1/4 | 1 1/4 | V | 6 1/4 | 2 1/2 | 6 1/4 | 2 1/2 | 43 1/2 | 1 1/2 | F | 50 1/2 | 2 1/4 | 2 | 50 1/2 | 2 1/4 | 2 |
| International 63-6000 | 4 | 1 1/4 | 1 1/4 | 1 1/4 | V | 9 | 2 1/2 | 14 1/2 | 2 | 46 | 1 1/4 | F | 50 1/2 | 2 1/4 | 2 | 50 1/2 | 2 1/4 | 2 |
| International 103 | 4 | 1 1/4 | 1 1/4 | 1 1/4 | V | 9 | 2 1/2 | 6 1/4 | 3 | 51 | 1 1/4 | F | ... | ... | ... | ... | ... | ... |
| Kearns H-1 | 3 | 1 1/4 | 1 1/4 | ... | H | 16 | 2 | 16 | 2 | 33 | 1 | F | 42 | 2 | 1 | 21 | 2 | 2 |
| Kearns N-1 1/2 | 3 | 1 1/4 | 1 1/4 | ... | H | 18 | 2 | 18 | 2 | 33 | 1 | F | 45 | 2 1/2 | 4 | 42 | 2 1/2 | 4 |
| Kearns N-1-2 | 3 | 1 1/4 | 1 1/4 | ... | V | ... | ... | ... | ... | 33 | 1 1/4 | F | 42 | 2 1/4 | 4 | 42 | 2 1/4 | 4 |
| Kearns T-3 1/2 | 3 | 1 1/4 | 1 1/4 | ... | V | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Kearns TF-5 | 3 | 1 1/4 | 1 1/4 | ... | V | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Kelly-Springfield K70 | 4 | 1 1/4 | 1 1/4 | 1 1/4 | V | 12 1/4 | 1 1/2 | 16 | 1 1/2 | 41 1/2 | 1 1/2 | F | 17 1/2 | 2 1/2 | 4 | 17 1/2 | 2 1/2 | 4 |
| Kelly-Springfield K41-3 1/2-5 | 4 | 1 1/4 | 1 1/4 | 1 1/4 | V | 6 1/2 | 1 1/2 | 24 | 1 1/2 | 59 1/2 | 1 | F | 3 1/2 | 4 1/2 | 12 | 25 1/2 | 2 1/2 | 4 |
| Kelly-Springfield K61-5 to 7 | 4 | 1 1/4 | 1 1/4 | 1 1/4 | V | 6 1/2 | 1 1/2 | 24 | 1 1/2 | 59 1/2 | 1 | F | 3 1/2 | 4 1/2 | 12 | 25 1/2 | 2 1/2 | 4 |
| Kelly-Springfield K75-2 1/2 | 4 | 1 1/4 | 1 1/4 | 1 1/4 | V | 7 | 1 1/2 | 13 | 1 1/2 | 41 1/2 | 1 1/2 | F | 3 1/2 | 4 1/2 | 12 | 21 1/4 | 2 1/2 | 4 |
| Kelly-Springfield K-76-2 1/2 | 4 | 1 1/4 | 1 1/4 | 1 1/4 | V | 7 | 1 1/2 | 13 | 1 1/2 | 41 1/2 | 1 1/2 | F | 17 1/2 | 2 1/2 | 4 | 17 1/2 | 2 1/2 | 4 |
| Kenworth KS-2 1/2 | 4 | 1 1/4 | 1 1/4 | 1 1/4 | H | 12 | 2 | 14 | 1 1/4 | 36 | 2 | ... | 20 | 2 1/4 | 2 | 20 | 2 1/4 | 2 |
| Kenworth M-1 1/2 | 4 | 1 1/4 | 1 1/4 | 1 1/4 | H | 12 | 2 | 14 | 1 1/4 | 36 | 2 | ... | 46 | 2 | 2 | 46 | 2 | 2 |
| Kenworth L-3 | 4 | 1 1/4 | 1 1/4 | 1 1/4 | H | 13 1/2 | 2 | 16 | 1 1/4 | 36 | 2 | ... | 56 | 2 1/2 | 2 | 56 | 2 1/2 | 2 |
| King Zeitler 1 | 4 | 1 1/4 | 1 1/4 | 1 1/4 | V | 11 | 1 1/2 | 15 1/2 | 1 1/2 | 40 | 1 1/4 | F | 11 | 3 | 4 | 11 | 3 | 4 |
| King Zeitler 1 1/2 | 4 | 1 1/4 | 1 1/4 | 1 1/4 | V | 11 | 1 1/2 | 15 1/2 | 1 1/2 | 40 | 1 1/4 | F | 12 1/4 | 3 1/4 | 4 | 12 1/4 | 3 1/4 | 4 |
| King Zeitler 2 1/2 | 4 | 1 1/4 | 1 1/4 | 1 1/4 | V | 12 | 1 1/2 | 16 | 1 1/2 | 41 | 1 1/4 | F | 13 1/2 | 3 1/2 | 4 | 13 1/2 | 3 1/2 | 4 |
| King Zeitler 3 1/2 | 4 | 1 1/4 | 1 1/4 | 1 1/4 | V | 12 | 1 1/2 | 16 | 1 1/2 | 42 | 1 1/4 | F | 16 | 3 1/4 | 4 | 16 | 3 1/4 | 4 |
| King Zeitler 5 | 4 | 1 1/4 | 1 1/4 | 1 1/4 | V | 14 | 2 | 22 | 2 | 42 | 1 1/2 | F | 19 1/4 | 4 | 4 | 19 1/4 | 4 | 4 |
| Kissel 1 Ton. | 3 | 1 1/4 | 1 1/4 | ... | ... | 12 1/4 | 1 1/4 | 10 | 1 1/4 | 46 1/4 | 2 | F | 11 | 3 | 4 | 12 | 3 1/4 | 4 |
| Kissel Utility 1 1/2 | 3 | 1 1/4 | 1 1/4 | ... | ... | 12 1/4 | 1 1/4 | 10 | 1 1/4 | 46 1/4 | 2 | F | 19 | 2 | 4 | 12 | 3 1/4 | 4 |
| Kissel Freight 2 | 3 | 1 1/4 | 1 1/4 | ... | ... | 12 1/4 | 1 1/4 | 10 | 1 1/4 | 49 | 2 | F | 14 | 3 1/2 | 4 | 14 | 3 1/2 | 4 |
| Kissel Heavy Duty 4 | 3 | 1 1/4 | 1 1/4 | ... | ... | 13 1/4 | 1 1/4 | 10 | 1 1/4 | 52 1/4 | 2 | F | 56 | 2 1/2 | 2 | 56 | 2 1/2 | 2 |
| Kleiber 1 1/2 | 4 | 1 1/4 | 1 1/4 | ... | V | 11 | 1 1/2 | 13 | 1 1/2 | 45 1/2 | 1 1/2 | F | 13 | 3 1/4 | 4 | 13 | 3 1/4 | 4 |
| Kleiber 2 1/2 | 4 | 1 1/4 | 1 1/4 | ... | V | 12 | 1 1/2 | 14 | 1 1/2 | 47 1/2 | 1 1/2 | F | 14 | 3 1/4 | 4 | 14 | 3 1/4 | 4 |
| Kleiber 3 1/2 | 4 | 1 1/4 | 1 1/4 | ... | V | 13 | 1 1/2 | 14 1/2 | 1 1/2 | 47 1/2 | 1 1/2 | F | 16 | 3 1/4 | 4 | 16 | 3 1/4 | 4 |
| Kleiber 5 | 4 | 1 1/4 | 1 1/4 | ... | V | 14 | 1 1/2 | 15 | 1 1/2 | 48 1/2 | 1 1/2 | F | 18 | 4 | 4 | 18 | 4 | 4 |
| Krebs J-24 | 4 | 1 1/4 | 1 1/4 | ... | V | 8 | 1 1/2 | 17 | 1 1/2 | 42 | 1 1/2 | F | 11 1/4 | 2 1/2 | 4 | 11 1/4 | 2 1/2 | 4 |
| Krebs 50 | 4 | 1 1/4 | 1 1/4 | ... | V | 10 | 1 1/2 | 17 | 1 1/2 | 42 | 1 1/2 | F | 13 1/2 | 3 1/2 | 4 | 13 1/2 | 3 1/2 | 4 |
| Krebs K-45 | 4 | 1 1/4 | 1 1/4 | ... | V | 10 | 1 1/2 | 17 | 1 1/2 | 42 | 1 1/2 | F | 12 | 3 1/4 | 4 | 12 | 3 1/4 | 4 |
| Krebs 80 | 4 | 1 1/4 | 1 1/4 | ... | V | 11 | 1 1/2 | 17 | 1 1/2 | 44 | 2 | F | 13 1/2 | 3 1/2 | 4 | 13 1/2 | 3 1/2 | 4 |
| Krebs L-75 | 4 | 1 1/4 | 1 1/4 | ... | V | 11 | 1 1/2 | 17 | 1 1/2 | 44 | 2 | F | 16 | 3 1/4 | 4 | 16 | 3 1/4 | 4 |
| Krebs 100 | 4 | 1 1/4 | 1 1/4 | ... | V | 11 | 1 1/2 | 17 | 1 1/2 | 44 | 2 | F | 16 | 3 1/4 | 4 | 16 | 3 1/4 | 4 |
| Krebs L-110 | 4 | 1 1/4 | 1 1/4 | ... | V | 11 | 1 1/2 | 17 | 1 1/2 | 44 | 2 | F | 16 | 3 1/4 | 4 | 16 | 3 1/4 | 4 |
| Krebs 130 | 4 | 1 1/4 | 1 1/4 | ... | V | 11 | 1 1/2 | 17 | 1 1/2 | 44 | 2 | F | 16 | 3 1/4 | 4 | 16 | 3 1/4 | 4 |
| Krebs B-120 | 4 | 1 1/4 | 1 1/4 | ... | V | 11 | 1 1/2 | 17 | 1 1/2 | 44 | 2 | F | 16 | 3 1/4 | 4 | 16 | 3 1/4 | 4 |
| Lange F-3 1/2 | 4 | 1 1/4 | 1 1/4 | ... | V | 7 | 1 1/4 | 14 | 1 1/4 | 45 | 1 1/2 | F | 13 1/4 | 3 1/4 | 4 | 13 1/4 | 3 1/4 | 4 |
| Lange E-2 1/2 | 4 | 1 1/4 | 1 1/4 | ... | V | 4 | 1 1/4 | 14 | 1 1/4 | 42 | 1 1/2 | F | 11 1/2 | 3 1/2 | 4 | 11 1/2 | 3 1/2 | 4 |
| Lange G-1 1/2 | 4 | 1 1/4 | 1 1/4 | ... | V | 5 1/2 | 1 1/2 | 13 | 1 1/2 | 40 | 1 1/4 | F | 12 | 3 1/4 | 4 | 12 | 3 1/4 | 4 |
| Larrabee X2-1-1 1/2 Ton. | 3 | 1 1/4 | 1 1/4 | ... | V | 6 1/2 | 1 1/2 | 10 | 1 1/2 | 41 | 1 1/4 | F | 19 | 2 | 4 | 19 | 2 | 4 |
| Larrabee J4-1 1/2-2 1/2 Ton. | 4 | 1 1/4 | 1 1/4 | ... | V | 6 | 1 1/2 | 11 | 1 1/2 | 45 1/2 | 1 1/2 | F | 21 | 2 1/4 | 4 | 21 | 2 1/4 | 4 |
| Larrabee K5-2 1/2-3 1/2 Ton. | 4 | 1 1/4 | 1 1/4 | ... | V | 6 | 1 1/2 | 11 | 1 1/2 | 45 1/2 | 1 1/2 | F | 21 | 4 | 4 | 21 | 4 | 4 |
| Larrabee L4-3 1/2-4 1/2 Ton. | 4 | 1 1/4 | 1 1/4 | ... | V | 6 | 1 1/2 | 11 | 1 1/2 | 45 1/2 | 1 1/2</ | | | | | | | |

Replacement Table—Continued

| Width Clearance at lowest Point of Chassis | NAME, MODEL AND TONNAGE | ENGINE | | | | | | | | | | BRAKE LINING | | | | | | | | FRAME | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | Length | Width | Thickness | No. of Pieces | Length | Width | Thickness | No. of Pieces | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | No. per Cyl. | Width | Outlet Diameter | Inlet Diameter | Vertical or Horizontal | Length | Width | Length | Width | Length | Width | Type | Length | Width | Thickness | No. of Pieces | Length | Width | Thickness | No. of Pieces | Back of Driver's Seat | Driver's Seat to Center of Rear Axle | Over All | Over All | Clearance at lowest Point of Chassis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Over All | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Replacement Table—Continued

| NAME, MODEL AND TONNAGE | ENGINE | | | | | | | | | | BRAKE LINING | | | | | | | FRAME | | | | | | | |
|--------------------------|--------------|-------|-----------------|----------------|------------------------|--------|------------|--------|----------|--------|--------------|------|--------|-------|-----------|---------------|--------|--------|-----------|---------------|-----------------------|--------------------------------------|----------|----------|--------------------------------------|
| | Piston Rings | | Carburetor | | Upper Hose | | Lower Hose | | Fan Belt | | Service | | | | Emergency | | | Length | | Width | | | | | |
| | No. per Cyl. | Width | Outlet Diameter | Inlet Diameter | Vertical or Horizontal | Length | Width | Length | Width | Length | Width | Type | Length | Width | Thickness | No. of Pieces | Length | Width | Thickness | No. of Pieces | Back of Driver's Seat | Driver's Seat to Center of Rear Axle | Over All | Over All | Clearance at Lowest Point of Chassis |
| Sandow G-1 | 3 | 1 1/4 | 1 1/4 | 1 | H | 9 | 2 | 7 | 2 | 38 3/4 | 3 1/2 | V | 22 1/4 | 2 1/4 | 1 1/4 | 4 | 22 1/4 | 2 1/4 | 1 1/4 | 4 | 96 | 205 | 34 | 10 1/2 | |
| Sandow C-G-1 1/2 | 3 | 1 1/4 | 1 1/4 | 1 | H | 9 | 2 | 7 | 2 | 38 3/4 | 3 1/2 | V | 22 1/4 | 2 1/4 | 1 1/4 | 4 | 22 1/4 | 2 1/4 | 1 1/4 | 4 | 120 | 205 | 34 | 10 1/2 | |
| Sandow J-2 1/2 | 3 | 1 1/4 | 1 1/4 | 1 | H | 9 | 2 | 7 | 2 | 38 3/4 | 3 1/2 | V | 22 1/4 | 2 1/4 | 1 1/4 | 4 | 22 1/4 | 2 1/4 | 1 1/4 | 4 | 120 | 205 | 34 | 10 1/2 | |
| Sandow M-3 1/2 | 3 | 1 1/4 | 1 1/4 | 1 | H | 9 | 2 | 7 | 2 | 38 3/4 | 3 1/2 | V | 22 1/4 | 2 1/4 | 1 1/4 | 4 | 22 1/4 | 2 1/4 | 1 1/4 | 4 | 120 | 205 | 34 | 10 1/2 | |
| Sandow L-5 | 3 | 1 1/4 | 1 1/4 | 1 | H | 9 | 2 | 7 | 2 | 38 3/4 | 3 1/2 | V | 22 1/4 | 2 1/4 | 1 1/4 | 4 | 22 1/4 | 2 1/4 | 1 1/4 | 4 | 120 | 205 | 34 | 10 1/2 | |
| Sanford W15-1 1/2 | 3 | 1 1/4 | 1 1/4 | 1 | H | 9 | 2 | 7 | 2 | 38 3/4 | 3 1/2 | V | 22 1/4 | 2 1/4 | 1 1/4 | 4 | 22 1/4 | 2 1/4 | 1 1/4 | 4 | 120 | 205 | 34 | 10 1/2 | |
| Sanford 25-2 1/2 | 3 | 1 1/4 | 1 1/4 | 1 | H | 9 | 2 | 7 | 2 | 38 3/4 | 3 1/2 | V | 22 1/4 | 2 1/4 | 1 1/4 | 4 | 22 1/4 | 2 1/4 | 1 1/4 | 4 | 144 | 244 | 35 | 9 1/2 | |
| Sanford 35-3 1/2 | 3 | 1 1/4 | 1 1/4 | 1 | H | 9 | 2 | 7 | 2 | 38 3/4 | 3 1/2 | V | 22 1/4 | 2 1/4 | 1 1/4 | 4 | 22 1/4 | 2 1/4 | 1 1/4 | 4 | 144 | 244 | 35 | 8 1/2 | |
| Sanford 50-5 | 3 | 1 1/4 | 1 1/4 | 1 | H | 9 | 2 | 7 | 2 | 38 3/4 | 3 1/2 | V | 22 1/4 | 2 1/4 | 1 1/4 | 4 | 22 1/4 | 2 1/4 | 1 1/4 | 4 | 144 | 244 | 35 | 10 1/2 | |
| Saurer 5AD-6 1/2 | 4 | 1 1/4 | 1 1/4 | 1 1/2 | V | 6 | 1 1/2 | 10 | 1 1/2 | 47 1/2 | 1 1/2 | F | 33 | 2 1/2 | 1 1/4 | 1 | 48 | 2 1/2 | 1 1/4 | 1 | Opt | Opt | Opt | 33 1/2 | 10 |
| Schacht H-1 1/2 | 3 | 1 1/4 | 1 1/4 | 1 | H | 18 | 2 1/2 | 14 | 1 1/2 | 38 | 1 1/2 | F | 33 | 2 1/2 | 1 1/4 | 1 | 48 | 2 1/2 | 1 1/4 | 1 | Opt | Opt | Opt | 33 1/2 | 10 |
| Schacht G-2-2 1/2-3 | 4 | 1 1/4 | 1 1/4 | 1 1/2 | H | 18 | 2 1/2 | 14 | 1 1/2 | 40 | 2 | F | 33 | 2 1/2 | 1 1/4 | 1 | 48 | 2 1/2 | 1 1/4 | 1 | Opt | Opt | Opt | 33 1/2 | 10 |
| Schacht G-4-5 | 4 | 1 1/4 | 1 1/4 | 1 1/2 | H | 18 | 2 1/2 | 14 | 1 1/2 | 40 | 2 | F | 33 | 2 1/2 | 1 1/4 | 1 | 48 | 2 1/2 | 1 1/4 | 1 | Opt | Opt | Opt | 33 1/2 | 10 |
| Selden 30C | 4 | 1 1/4 | 1 1/4 | 1 1/2 | V | 6 | 1 1/2 | 11 1/2 | 1 1/2 | 41 | 1 1/2 | F | 11 1/2 | 3 1/2 | 1 1/4 | 4 | 11 1/2 | 3 1/2 | 1 1/4 | 4 | 114 | 71 | 198 1/2 | 34 | |
| Selden 50B | 4 | 1 1/4 | 1 1/4 | 1 1/2 | V | 8 3/8 | 1 1/2 | 14 3/4 | 1 1/2 | 39 1/4 | 1 1/2 | F | 13 | 3 1/2 | 1 1/4 | 4 | 13 | 3 1/2 | 1 1/4 | 4 | 136 | 82 | 227 1/2 | 34 | |
| Selden 52 | 4 | 1 1/4 | 1 1/4 | 1 1/2 | V | 8 3/8 | 1 1/2 | 16 1/4 | 1 1/2 | 40 3/8 | 2 | F | 13 | 3 1/2 | 1 1/4 | 4 | 13 | 3 1/2 | 1 1/4 | 4 | 240 | 161 | 295 | 52 | |
| Selden 53B | 4 | 1 1/4 | 1 1/4 | 1 1/2 | V | 11 1/2 | 1 1/2 | 16 1/4 | 1 1/2 | 40 3/8 | 2 | F | 15 1/2 | 3 1/2 | 1 1/4 | 4 | 15 1/2 | 3 1/2 | 1 1/4 | 4 | 136 | 82 | 244 | 34 | |
| Selden 70B | 4 | 1 1/4 | 1 1/4 | 1 1/2 | V | 8 3/8 | 1 1/2 | 16 1/4 | 1 1/2 | 40 3/8 | 2 | F | 15 1/2 | 3 1/2 | 1 1/4 | 4 | 15 1/2 | 3 1/2 | 1 1/4 | 4 | 155 | 91 | 253 1/2 | 37 1/2 | |
| Selden 73B | 4 | 1 1/4 | 1 1/4 | 1 1/2 | V | 9 | 1 1/2 | 14 3/4 | 1 1/2 | 40 3/8 | 2 | F | 15 1/2 | 3 1/2 | 1 1/4 | 4 | 15 1/2 | 3 1/2 | 1 1/4 | 4 | 155 | 91 | 253 1/2 | 37 1/2 | |
| Selden 90B | 4 | 1 1/4 | 1 1/4 | 1 1/2 | V | 7 | 1 1/2 | 16 3/4 | 1 1/2 | 40 3/8 | 2 | F | 17 1/2 | 4 | 1 1/4 | 4 | 17 1/2 | 4 | 1 1/4 | 4 | 153 | 89 | 256 1/2 | 37 1/2 | |
| Service 25-1 1/4 | 3 | 1 1/4 | 1 1/4 | 1 | V | 12 1/2 | 1 1/2 | 13 | 1 1/2 | 32 3/8 | 1 1/2 | F | 20 | 1 1/4 | 1 1/4 | 4 | 20 | 1 1/4 | 1 1/4 | 4 | 106 1/2 | 65 1/2 | 203 1/2 | 32 | 9 1/2 |
| Service 33-1 1/2 | 3 | 1 1/4 | 1 1/4 | 1 | V | 8 | 1 1/2 | 10 | 1 1/2 | 38 | 1 1/2 | V | 11 | 3 1/4 | 1 1/4 | 4 | 11 | 3 1/4 | 1 1/4 | 4 | 121 | 76 1/2 | 216 1/2 | 34 | 10 1/2 |
| Service 42-2 | 4 | 1 1/4 | 1 1/4 | 1 1/2 | V | 10 | 2 | 10 | 1 1/2 | 38 | 1 1/2 | V | 11 1/2 | 3 1/4 | 1 1/4 | 4 | 11 1/2 | 3 1/4 | 1 1/4 | 4 | 117 1/2 | 81 1/2 | 216 1/2 | 34 | 10 1/2 |
| Service 61-3 | 4 | 1 1/4 | 1 1/4 | 1 1/2 | V | 10 | 2 | 10 | 1 1/2 | 38 | 1 1/2 | V | 13 1/2 | 3 1/2 | 1 1/4 | 4 | 13 1/2 | 3 1/2 | 1 1/4 | 4 | 127 1/2 | 92 1/2 | 226 1/2 | 34 | 10 1/2 |
| Service 81-4 | 4 | 1 1/4 | 1 1/4 | 1 1/2 | V | 10 | 2 | 11 1/2 | 1 1/2 | 40 3/4 | 1 1/2 | V | 15 1/2 | 3 1/2 | 1 1/4 | 4 | 15 1/2 | 3 1/2 | 1 1/4 | 4 | 144 | 100 1/2 | 245 1/2 | 38 | 8 1/2 |
| Service 103-6 | 4 | 1 1/4 | 1 1/4 | 1 1/2 | V | 10 | 2 | 11 1/2 | 1 1/2 | 40 3/4 | 1 1/2 | V | 18 | 4 | 1 1/4 | 4 | 18 | 4 | 1 1/4 | 4 | 144 | 100 1/2 | 245 1/2 | 38 | 10 |
| Standard 75-1 1/4 | 3 | 1 1/4 | 1 1/4 | 1 | V | 10 1/2 | 1 1/2 | 14 3/4 | 1 1/2 | 39 1/4 | 1 1/2 | F | 11 1/2 | 3 1/4 | 1 1/4 | 4 | 11 1/2 | 3 1/4 | 1 1/4 | 4 | 108 | 62 1/2 | 198 | 32 | 9 1/2 |
| Standard 1 1/2 K-1-1 1/2 | 3 | 1 1/4 | 1 1/4 | 1 | V | 10 1/2 | 1 1/2 | 14 3/4 | 1 1/2 | 39 1/4 | 1 1/2 | F | 10 1/2 | 3 | 1 1/4 | 4 | 10 1/2 | 3 | 1 1/4 | 4 | 120 | 72 1/2 | 210 | 32 | 9 1/2 |
| Standard 2 1/2 K-2 1/2-3 | 3 | 1 1/4 | 1 1/4 | 1 1/2 | V | 10 | 1 1/2 | 16 | 1 1/2 | 40 1/2 | 1 1/2 | F | 13 1/2 | 3 1/2 | 1 1/4 | 4 | 13 1/2 | 3 1/2 | 1 1/4 | 4 | 132 | 83 | 220 1/2 | 32 | 12 |
| Standard 3 1/2 K-3 1/2-5 | 3 | 1 1/4 | 1 1/4 | 1 1/2 | V | 10 | 1 1/2 | 16 | 1 1/2 | 41 1/2 | 1 1/2 | F | 15 1/2 | 3 1/2 | 1 1/4 | 4 | 15 1/2 | 3 1/2 | 1 1/4 | 4 | 144 | 93 1/2 | 240 | 38 | 9 1/2 |
| Standard 5K-5-7 | 3 | 1 1/4 | 1 1/4 | 1 1/2 | V | 8 | 1 1/2 | 3 1/2 | 1 1/2 | 42 1/4 | 1 1/2 | F | 17 1/2 | 4 | 1 1/4 | 4 | 17 1/2 | 4 | 1 1/4 | 4 | 144 | 93 1/2 | 244 1/2 | 38 | 9 |
| Sterling 1 1/2 | 3 | 1 1/4 | 1 1/4 | 1 1/2 | V | 10 | 1 1/2 | 19 | 1 1/2 | 38 | 1 1/2 | F | 11 1/2 | 3 1/2 | 1 1/4 | 4 | 11 1/2 | 3 1/2 | 1 1/4 | 4 | 120 | 70 | 216 | 34 | |
| Sterling 2 | 3 | 1 1/4 | 1 1/4 | 1 1/2 | V | 10 | 1 1/2 | 19 | 1 1/2 | 38 | 1 1/2 | F | 13 1/2 | 3 1/2 | 1 1/4 | 4 | 13 1/2 | 3 1/2 | 1 1/4 | 4 | 120 | 70 | 216 | 34 | |
| Sterling 2 1/2 | 3 | 1 1/4 | 1 1/4 | 1 1/2 | V | 10 | 1 1/2 | 19 | 1 1/2 | 38 | 1 1/2 | F | 13 1/2 | 3 1/2 | 1 1/4 | 4 | 13 1/2 | 3 1/2 | 1 1/4 | 4 | 138 | 84 | 234 | 34 | |
| Sterling 3 1/2 | 3 | 1 1/4 | 1 1/4 | 1 1/2 | V | 10 | 1 1/2 | 22 | 1 1/2 | 40 1/2 | 1 1/2 | F | 15 1/2 | 3 1/2 | 1 1/4 | 4 | 15 1/2 | 3 1/2 | 1 1/4 | 4 | 144 | 85 | 245 | 38 | |
| Sterling 5-Worm | 3 | 1 1/4 | 1 1/4 | 1 1/2 | V | 10 | 1 1/2 | 19 | 1 1/2 | 40 1/2 | 1 1/2 | F | 17 1/2 | 4 | 1 1/4 | 4 | 17 1/2 | 4 | 1 1/4 | 4 | 158 | 91 | 259 | 38 | |
| Sterling 5-Chain E.H.D. | 3 | 1 1/4 | 1 1/4 | 1 1/2 | V | 10 | 1 1/2 | 19 | 1 1/2 | 40 1/2 | 1 1/2 | F | 56 1/2 | 3 1/2 | 1 1/4 | 2 | 29 1/2 | 4 | 1 1/4 | 1 | 158 | 97 | 259 | 38 | |
| Sterling 5-Chain E.L.D. | 3 | 1 1/4 | 1 1/4 | 1 1/2 | V | 10 | 1 1/2 | 22 | 1 1/2 | 40 1/2 | 1 1/2 | F | 56 1/2 | 3 1/2 | 1 1/4 | 2 | 29 1/2 | 4 | 1 1/4 | 1 | 158 | 97 | 259 | 38 | |
| Sterling 7 1/2 | 3 | 1 1/4 | 1 1/4 | 1 1/2 | V | 10 | 1 1/2 | 19 | 1 1/2 | 40 1/2 | 1 1/2 | F | 56 1/2 | 3 1/2 | 1 1/4 | 2 | 29 1/2 | 4 | 1 1/4 | 1 | 158 | 97 | 259 | 38 | |
| Stewart M15-1 1/4 | 3 | 1 1/4 | 1 1/4 | 1 | V | 10 | 1 1/2 | 19 | 1 1/2 | 38 | 1 1/2 | F | 41 1/2 | 2 | 1 1/4 | 2 | 22 1/2 | 2 | 1 1/4 | 1 | 99 1/2 | 58 | 198 | 32 | |
| Stewart M9-1 1/2 | 3 | 1 1/4 | 1 1/4 | 1 | V | 10 | 1 1/2 | 19 | 1 1/2 | 38 | 1 1/2 | F | 48 1/2 | 2 | 1 1/4 | 2 | 22 1/2 | 2 | 1 1/4 | 1 | 119 1/2 | 68 | 213 1/2 | 32 | |
| Stewart M7X | 3 | 1 1/4 | 1 1/4 | 1 | V | 10 | 1 1/2 | 19 | 1 1/2 | 38 | 1 1/2 | F | 50 1/2 | 2 | 1 1/4 | 2 | 22 1/2 | 2 | 1 1/4 | 1 | 132 1/2 | 78 | 232 1/2 | 32 | |
| Stewart M10X | 3 | 1 1/4 | 1 1/4 | 1 | V | 10 | 1 1/2 | 19 | 1 1/2 | 38 | 1 1/2 | F | 60 | 3 | 1 1/4 | 2 | 28 | 5 | 1 1/4 | 2 | 138 | 84 | 243 | 36 | 9 1/2 |
| Super Truck 50 | | | | | | | | | | | | | | | | | | | | | | | | | |

Replacement Table—Continued

| NAME, MODEL AND TONNAGE | ENGINE | | | | | | | | | | BRAKE LINING | | | | FRAME | | | |
|----------------------------|--------------|-------|-----------------|----------------|------------------------|--------|------------|--------|----------|--------|--------------|-----------|---------------|--------|--------|-----------|---------------|-----------------------|
| | Piston Rings | | Carburetor | | Upper Hose | | Lower Hose | | Fan Belt | | Service | | Emergency | | Length | | Width | |
| | No. per Cyl. | Width | Outlet Diameter | Inlet Diameter | Vertical or Horizontal | Length | Width | Length | Width | Length | Width | Thickness | No. of Pieces | Length | Width | Thickness | No. of Pieces | Back of Driver's Seat |
| White 15A-Taxi..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 7 1/4 | 1 1/4 | 6 1/2 | 1 1/4 | 38 | 1 1/4 | F | 46 | 2 1/2 | 1 1/4 | 1 1/4 | 2 | 55 1/2 |
| White 15-1/2..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 7 1/4 | 1 1/4 | 6 1/2 | 1 1/4 | 38 | 1 1/4 | F | 46 | 2 1/2 | 1 1/4 | 1 1/4 | 2 | 55 1/2 |
| White 15-45-1/2..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 7 1/4 | 1 1/4 | 6 1/2 | 1 1/4 | 38 | 1 1/4 | F | 46 | 2 1/2 | 1 1/4 | 1 1/4 | 2 | 55 1/2 |
| White 20-2..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 7 1/4 | 1 1/4 | 6 1/2 | 1 1/4 | 38 | 1 1/4 | F | 46 | 2 1/2 | 1 1/4 | 1 1/4 | 2 | 55 1/2 |
| White 20-D-2..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 7 1/4 | 1 1/4 | 6 1/2 | 1 1/4 | 38 | 1 1/4 | F | 46 | 2 1/2 | 1 1/4 | 1 1/4 | 2 | 55 1/2 |
| White 20-45-2..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 7 1/4 | 1 1/4 | 6 1/2 | 1 1/4 | 38 | 1 1/4 | F | 46 | 2 1/2 | 1 1/4 | 1 1/4 | 2 | 55 1/2 |
| White 50A-Bus..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 13 1/2 | 1 1/4 | 12 | 1 1/4 | 40 1/2 | 2 1/4 | F | 11 1/2 | 4 | 50 1/2 | 3 1/2 | 2 | 107 1/2 |
| White 40-3 1/2..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 13 1/2 | 1 1/4 | 12 | 1 1/4 | 45 1/2 | 2 1/4 | F | 11 1/2 | 4 | 50 1/2 | 3 1/2 | 2 | 107 1/2 |
| White 40-D-3 1/2..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 13 1/2 | 1 1/4 | 12 | 1 1/4 | 45 1/2 | 2 1/4 | F | 11 1/2 | 4 | 50 1/2 | 3 1/2 | 2 | 107 1/2 |
| White 45-5..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 13 1/2 | 1 1/4 | 12 | 1 1/4 | 45 1/2 | 2 1/4 | F | 11 1/2 | 4 | 50 1/2 | 3 1/2 | 2 | 107 1/2 |
| White 45-D-5..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 13 1/2 | 1 1/4 | 12 | 1 1/4 | 45 1/2 | 2 1/4 | F | 11 1/2 | 4 | 50 1/2 | 3 1/2 | 2 | 107 1/2 |
| Wilcox AA-1..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 8 | 1 1/4 | 12 | 1 1/4 | 31 | 1 1/4 | F | 47 1/2 | 2 1/2 | 1 1/4 | 1 1/4 | 2 | 96 |
| Wilcox B-1 1/2..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 8 | 1 1/4 | 12 | 1 1/4 | 31 | 1 1/4 | F | 47 1/2 | 2 1/2 | 1 1/4 | 1 1/4 | 2 | 96 |
| Wilcox C-2 1/2..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 8 | 1 1/4 | 12 | 1 1/4 | 31 | 1 1/4 | F | 47 1/2 | 2 1/2 | 1 1/4 | 1 1/4 | 2 | 96 |
| Wilcox E-3 1/2..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 8 | 1 1/4 | 12 | 1 1/4 | 31 | 1 1/4 | F | 47 1/2 | 2 1/2 | 1 1/4 | 1 1/4 | 2 | 96 |
| Wilcox F-5..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 8 | 1 1/4 | 12 | 1 1/4 | 31 | 1 1/4 | F | 47 1/2 | 2 1/2 | 1 1/4 | 1 1/4 | 2 | 96 |
| Witt-Will P-2..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 8 | 1 1/4 | 12 | 1 1/4 | 31 | 1 1/4 | F | 48 | 3 1/2 | 1 1/4 | 1 1/4 | 4 | 156 |
| Witt-Will SS-3..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 8 | 1 1/4 | 12 | 1 1/4 | 31 | 1 1/4 | F | 48 | 3 1/2 | 1 1/4 | 1 1/4 | 4 | 156 |
| Witt-Will N-1 1/2..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 8 | 1 1/4 | 12 | 1 1/4 | 31 | 1 1/4 | F | 48 | 3 1/2 | 1 1/4 | 1 1/4 | 4 | 156 |
| Witt-Will S-2 1/2..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 8 | 1 1/4 | 12 | 1 1/4 | 31 | 1 1/4 | F | 48 | 3 1/2 | 1 1/4 | 1 1/4 | 4 | 156 |
| Yellow Cab M22..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 8 1/2 | 2 | 10 1/2 | 2 | 38 1/2 | 1 1/4 | V | 49 | 2 1/2 | 1 1/4 | 1 1/4 | 2 | 60 |
| Yellow Cab M42-1 1/2..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 8 1/2 | 2 | 10 1/2 | 2 | 38 1/2 | 1 1/4 | V | 21 1/2 | 3 | 1 1/4 | 1 1/4 | 2 | 92 |
| Yellow Cab Express T1..... | 3 | 1 1/4 | 1 1/4 | 1 1/4 | V | 9 1/2 | 2 | 9 1/2 | 2 | 39 1/2 | 1 1/4 | V | 21 1/2 | 3 1/2 | 1 1/4 | 1 1/4 | 2 | 94 1/2 |

Defiance Motor Truck Company Plant Sold

The body plant of the Defiance Motor Truck Co., Defiance, Ohio, has been purchased by the General Body Company. Although under the control of the A. J. Miller Co., Bellefontaine, Ohio, the General Body Company will be operated as a separate unit and will engage in the production of large bus bodies of from 15 to 20-passenger capacity. They are of the pay-as-you-enter and double-deck type. The officers are: S. N. Arni, president and sales manager; M. C. Harrold, vice-president and general manager; and J. F. Robertson, secretary-treasurer.

Eastern Distributor for Erie Hoist Line

The Metropolitan Body Company, manufacturers of Metro Cabs and Combination Dump Bodies, have recently been appointed Eastern Distributors for the Erie motor truck power winches, manu-

factured by The Erie Hoist Company, Erie, Pa.

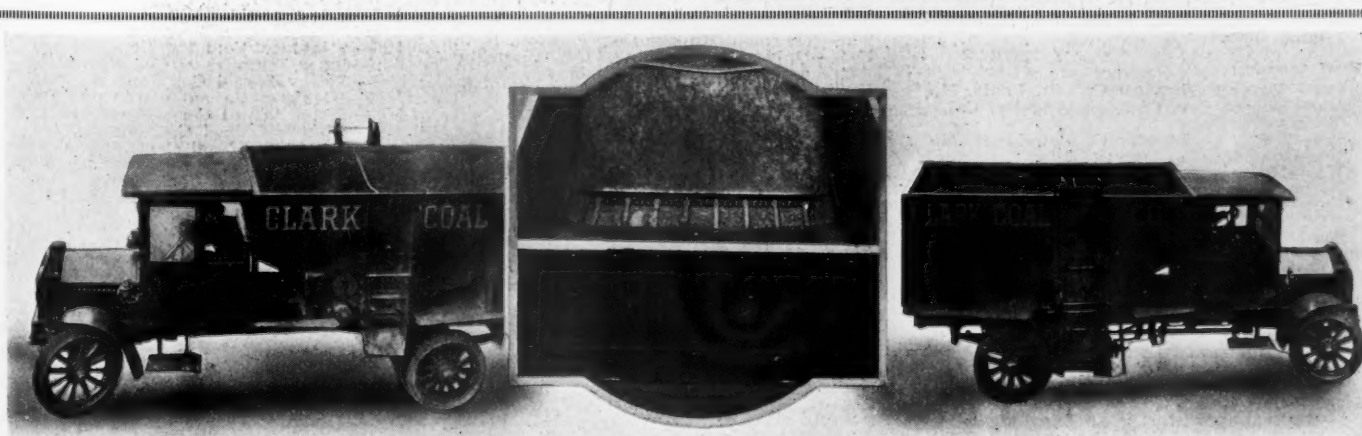
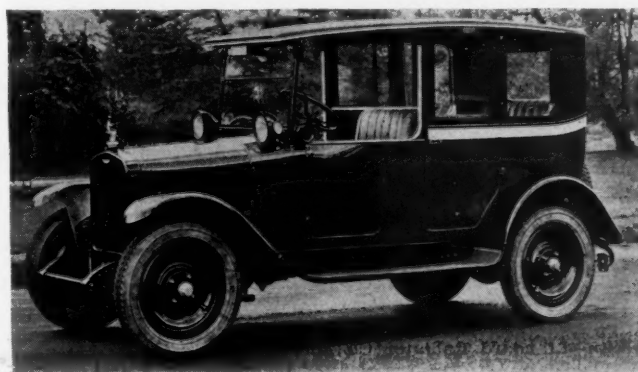
The Erie line consists of 20 models of high-grade, heavy-duty winches, single drum, double drum, vertical capstan, horizontal capstan, underslung, and pole-setting winches. The Metropolitan Body Company have a factory and office at Third and West Avenue, Long Island City, N. Y., and a factory branch in Philadelphia, 5808-20 Arch Street.

H. C. S. Cab Manufacturing Co. to Specialize in the Production of Taxicabs.

This taxicab is a 110-in. wheelbase, 5-passenger vehicle. Its specifications include a Ricardo L-head engine developing approximately 35 m. p. h. Force feed and Alemite lubrication is employed. Ignition is by battery with automatic spark advance. A set Zenith carburetor is used.

Driver Accident Insurance to be Compulsory

The Duchesne County Board of Education, Utah, has ordered school bus operators carrying students to and from school, to take out accident insurance. The action of the Duchesne board is an innovation in Utah. Whether or not it will be followed by other boards is not known yet.



Equipment of the New Barkman-Kutscha Body Permits Unloading at Heights Up to Eight Feet

This body to be marketed by the Auto Wheel & Rim Co., 3426 S. Wabash Ave., Chicago, was designed to meet all unloading problems. A load, whether it be of coal, lime, sand or gravel can be unloaded from any height up to eight feet, or can be discharged direct. For high unloading purpose the conveyor on the right side is used, for low discharge the spout arrangement at the left is employed. But two minutes are required to unload one ton over the conveyor and one minute through the spout. The center view shows the manner in which the material to be unloaded is moved to either left or right.

KEY OF ABBREVIATIONS

Wheelbase:

*—More than one wheelbase furnished.

Tires:

§§—Unless marked otherwise all tires are solids.
 *—Pneumatics standard equipment.
 †—Pneumatics at Extra Cost.
 ‡—Dual on Rear.

Engine:

Bud—Buda Co., Harvey, Ill.
 Con—Continental M. Corp., Detroit, Mich.
 D—Head & Side
 GBS—Golden, Belknap & Swartz Co., Detroit, Mich.
 H—Overhead.
 Her—Hercules M. Mfg. Co., Canton, Ohio.
 Hin—Hinkley Motors, Inc., Detroit, Mich.
 H-S—Herschell-Spillman Motor Co., North Tonawanda, N. Y.
 H-C—Holl Scott Motor Co., Berkeley, Cal.
 L—L-Head.
 Lye—Lycoming M. Corp., Williamsport, Pa.
 Mid—Midwest Eng. Co., Indianapolis, Ind.
 FP—Full Pressure to all bearings including wrist pins.
 PC—Pressure to all crankshaft and connecting rod bearings.
 PS—Pressure with splash.
 SP—Circulating splash.
 T—T-Head.
 Wau—Waukesha M. Co., Waukesha, Wis.
 Wis—Wisconsin M. Mfg. Co., Milwaukee, Wis.
 Yell—Yellow Sleeve Valve Eng. Works, East Moline, Ill.
 X—Sleeve.

Governor:

Con—Continental M. Corp., Detroit, Mich.
 Dup—Duplex Eng. Gov. Co., Brooklyn, N. Y.
 Han—Handy Gov. Co., Detroit, Mich.
 Hin—Hinkley Motors, Inc., Detroit, Mich.
 McK—E. R. Klemm, Chicago, Ill.
 Mon—Monarch Gov. Co., Detroit, Mich.
 Non—Not Supplied.
 Pha—Pharo Mfg. Co., Detroit, Mich.
 Pie—Pierce Governor Co., Anderson, Ind.
 Sim—Duplex Eng. Gov. Co., Brooklyn, N. Y.
 Wau—Waukesha M. Co., Waukesha, Wis.

Radiator:

Bre—Bremer-Tully Mfg. Co., Chicago, Ill.
 Bus—Bush Mfg. Co., Hartford, Conn.
 Cor—Corcoran Mfg. Co., Cincinnati, Ohio.
 Chic—Chicago Mfg. Co., Chicago, Ill.
 E&M—English & Mersick Co., New Haven, Conn.
 Fed—Feddars Mfg. Co., Buffalo, N. Y.
 Fle—Flexo Mfg. Co., Los Angeles, Cal.
 G&O—G. & O. Mfg. Co., New Haven, Conn.
 Har—Harrison Rad. Corp., Lockport, N. Y.
 Idl—Ideal Sheet Metal Works, Chicago, Ill.
 Lon—Long Mfg. Co., Detroit, Mich.
 McC—McCord Rad. & Mfg. Co., Detroit, Mich.
 McK—McKinnon Dash Co., Buffalo, N. Y.
 Per—Racine Radiator Co., Racine, Wis.
 R-T—Rome-Turney Rad. Co., Rome, N. Y.
 S-J—Shotwell-Johnson Co., Minneapolis, Minn.
 Spl—Splittdorf Electrical Co., Newark, N. J.
 Str—Standard Radiator Co., Inc., Springfield, N. Y.
 US—U. S. Cartridge Co., Lowell, Mass.
 Whe—Wheeler Rad. & Mfg. Co., E. Cleveland, Ohio.

Fuel System:

Car—Carter Carburetor Co., St. Louis, Mo.
 Ens—Ensign Car. Co., Los Angeles, Cal.
 G—Gravity.
 Hol—Holley Carburetor Co., St. Louis, Mo.
 Joh—Johnson Co., Detroit, Mich.
 Mar—Marvel Carburetor Co., Flint, Mich.
 P—Pressure.
 Ray—Beneke & Kropf Mfg. Co., Chicago, Ill.
 Sco—Briscoe Devices Corp., Pontiac, Mich.
 She—Wheeler Schebler Carburetor Co., Indianapolis, Ind.
 Ste—Detroit Lubricator Co., Detroit, Mich.
 Str—Stromberg Motor Devices Co., Chicago, Ill.
 Til—Tillotson Mfg. Co., Toledo, Ohio.
 V—Vacuum.
 Zen—Zenith-Detroit Corp., Detroit, Mich.

Electrical System:

†—Generator & Starter at Extra Cost.
 ‡—Starter not Supplied, Generator at Extra Cost.
 A-C—Allis-Chalmers Mfg. Co., Milwaukee, Wis.
 Apo—Apollo Magneto Corp., Apollo, Pa.
 A-K—Atwater Kent Mfg. Co., Phila., Pa.
 A-L—Electric Auto-Lite Corp., Toledo, O.

Ber—Ericsson Mfg. Co., Buffalo, N. Y.
 Bij—Bijur Motor Appliance Co., Hoboken, N. J.
 Bos—American Bosch Magneto Co., Springfield, Mass.
 Con—Connecticut Telephone & Electric Co., Meriden, Conn.
 Del—Dayton Engin. Lab. Co., Dayton, Ohio.
 Dyn—Owen Dyneto Corp., Syracuse, N. Y.
 Eis—Eisemann Magneto Corp., Brooklyn, G&D—Gray & Davis, Boston, Mass.
 Kin—Kokomo Electric Co., Kokomo, Ind.
 K-W—K. W. Ignition Co., Cleveland, Ohio.
 L-N—Leece-Neville Co., Cleveland, O.
 N-E—North East Elec. Co., Rochester, N. Y.
 Non—Not Supplied.
 POL—Prest-O-Lite Co., Inc., Indianapolis, Ind.
 Rem—Remy Electric Co., Anderson, Ind.
 RBO—Robert Bosch Magneto Co., New York, N. Y.
 Sci—Scintilla Magneto Co., New York, N. Y.
 Sim—Simms Magneto Co., E. Orange, N. J.
 Spl—Splittdorf Electrical Co., Newark, N. J.
 Wag—Wagner Elec. Mfg. Co., St. Louis, Mo.
 Wes—Westinghouse Elec. & Mfg. Co., Springfield, Mass.
 USL—U. S. Light & Heat Corp., Niagara Falls, N. Y.

Clutch & Gearset:

*—Other ratios optional.
 A—Amidships.
 B & B—Borg & Beck Co., Chicago, Ill.
 B-L—Brown-Lipe Gear Co., Syracuse, N. Y.
 Cot—Cotta Transmission Corp., Rockford, Ill.
 Cov—Covert Gear Co., Lockport, N. Y.
 Det—A. J. Detlaff Co., Detroit, Mich.
 D-G—Detroit Gear & Machine Co., Detroit, Mich.
 Dod—Dodge Brothers Co., Detroit, Mich.
 D-Disk.
 Dun—Dundore Mfg. Co., Reading, Pa.
 Durs—Durstun Gear Corp., Syracuse, N. Y.
 Ful—Fuller & Sons Mfg. Co., Kalamazoo, Mich.
 G-L—Grant Lee Gear Corp., Cleveland, O.
 Har—Hartford Auto Parts Corp., Hartford, Conn.
 Hoo—Hoosier Clutch Co., Muncie, Ind.
 H-S—Hele-Shaw, Merchant & Evans Co., Philadelphia, Pa.
 J—Unit with Jackshaft.
 K—Cone.
 M-E—Merchant & Evans Co., Phila., Pa.
 M-M—Mechanics Mach. Co., Rockford, Ill.
 Mun—Muncie Gear Works, Muncie, Ind.
 O—Disk in Oil.
 P—Plate.
 R—Rear Axle.
 U—Unit with Engine.
 W-G—Warner Gear Co., Muncie, Ind.

Universal:

Blo—Blood-Bros. Mach. Co., Allegan, Mich.
 Det—Universal Products Co., Detroit, Mich.
 Har—Hartford Auto Parts Corp., Hartford, Conn.
 M-M—Mechanics Machine Co., Rockford, Ill.
 M-E—Merchant & Evans Co., Phila., Pa.
 Pet—Cleveland Universal Parts Co., Cleveland, Ohio.
 Pic—Carl Pick Co., West Bend, Wis.
 Sne—Snead & Co., Jersey City, N. J.
 Spl—Spicer Mfg. Corp., S. Plainfield, N. J.
 The—Thermold Rubber Co., Trenton, N. J.
 U-M—Universal Machine Co., Bowling Green, Ohio.
 U-P—Universal Products Co., Detroit, Mich.

Front and Rear Axles:

1/2—Semi-Floating.
 3/4—Three-Quarter Floating.
 Atl—Atlas Axle Co., Wilmington, Del.
 Cla—Clark Equip. Co., Buchanan, Mich.
 Col—Columbia Axle Co., Cleveland, O.
 Con—Continental Axle Co., Edgerton, Wis.
 C—Chain.
 B—Straight Bevel.
 D—Dead.
 Eat—Eaton Axle Co., Cleveland, Ohio.
 Flt—Flint Motor Axle Co., Flint, Mich.
 F—Floating.
 Huc—Sheldon Axle & Spring Co., Wilkes-Barre, Pa.
 I—Internal Gear.
 LM—L. M. Axle Co., Cleveland, Ohio.
 P—Spur Gear.
 R—Double Reduction.
 Rus—Russel Motor Axle Co., Detroit, Mich.
 S—Spiral Bevel.
 Sal—Sallsbury Axle Co., Jamestown, N. Y.
 She—Sheldon Axle & Spring Co., Wilkes-Barre, Pa.
 Shu—Shuler Axle Co., Inc., Louisville, Ky.

Std—Standard Parts Co., Cleveland, O.
 Tim—Timken Detroit Axle Co., Detroit, Mich.
 Tor—Eaton Axle & Spring Co., Cleveland, Ohio.
 Vul—Vulcan Motor Axle Co.
 Wal—Walker Axle Co., Chicago, Ill.
 W—Worm.
 Wis—Wisconsin Parts Co., Oshkosh, Wis.

Brake:

A—Rear Wheels only.
 B—Drive Shaft and Rear Wheels.
 C—Front and Rear Wheel.
 D—Jackshaft and Rear Wheels.

Springs:

Am—American Auto Parts Co., Detroit, Mich.
 Arm—General Motors Co., Pontiac, Mich.
 Bea—Beans Spring Co., Inc., Massillon, O.
 Bet—Betts Bros. Sp. Co., Inc., San Francisco, Cal.
 Cha—Champion Auto Sp. Co., St. Louis, Mo.
 Del—D. Delany & Son, Newark, N. J.
 Det—Detroit Steel Prod. Co., Detroit, Mich.
 G-C—Garden City Sp. Works, Chicago, Ill.
 Har—Harvey Sp. & Forging Co., Racine, Wis.
 I-C—Iron City Spring Co., Pittsburgh, Pa.
 Lig—Liggett Sp. & Axle Co., Monongahela, Pa.
 Mar—Maremont Mfg. Co., Chicago, Ill.
 Mat—Mather Spring Co., Toledo, O.
 Mer—E. R. Merrill Spring Co., New York.
 Pen—Penn Sp. Works, Baldwinville, N. Y.
 Per—Perfection Sp. Co., Cleveland, O.
 Phi—Phila. Sp. Works, Phila., Pa.
 P.S.—Point Sp. Co., Pittsburgh, Pa.
 She—Sheldon Axle & Sp. Co., Wilkes-Barre, Pa.
 S. S.—Standard Steel Sp. Co., Coraopolis, Pa.
 Ste—Sterling Spring Co., Pittsburgh, Pa.
 Tem—Temme Sp. Corp., Chicago, Ill.
 Tut—Tuthill Sp. Co., Chicago, Ill.
 U. S.—United States Sp. Co., Los Angeles, Cal.
 Vul—Jenkins Vulc. Sp. Co., Richmond, Ind.

Steering Gear:

CAS—C. A. S. Products Co., Columbus, O.
 Dit—Ditwiler Mfg. Co., Gallon, Ohio.
 Dod—Dodge Bros. Co., Detroit, Mich.
 Gem—Gemmer Mfg. Co., Detroit, Mich.
 Jac—Saginaw Products Co., Saginaw, Mich.
 Lav—Lavine Gear Co., Milwaukee, Wis.
 M-P—Muncie Gear Works Corp., Muncie, Ind.
 Ros—Ross Gear & Tool Co., Lafayette, Ind.
 Sag—Saginaw Products Co., Saginaw, Mich.
 Woh—Wohlrab Gear Co., Racine, Wis.

Wheels:

Arc—Archibald Wheel Co., Lawrence, Mass.
 A-W—Auto Wheel Co., Lansing, Mich.
 Bim—Bimel Spoke & Auto Wheel Co., Portland, Ind.
 Bud—Budd Wheel Co., Phila., Pa.
 Cla—Clark Equip. Co., Buchanan, Mich.
 Day—Dayton Steel Foundry Co., Dayton, Ohio.
 Det—Detroit Panel & Plywood Co., Detroit, Mich.
 Dis—Disteel Wheel Corp., Detroit, Mich.
 Hay—Hayes Wheel Co., Jackson, Mich.
 Hoo—Hoopes, Bro. & Darlington, Inc., West Chester, Pa.
 Ind—Indestructible Wheel Co., Lebanon, Ind.
 Int—Interstate Foundry Co., Chicago, Ill.
 Jon—Jones, Phineas & Co., Newark, N. J.
 Kel—Kelsey Wheel Co., Detroit, Mich.
 MM—Michigan Malleable Iron Co., Detroit.
 Mot—Motor Wheel Corp., Lansing, Mich.
 Mun—Muncie Wheel Co., Muncie, Ind.
 Nor—Northern Wheel Corp., Alma, Mich.
 Pru—Prudden Wheel Co., Lansing, Mich.
 Roy—Royer Wheel Co., Aurora, Ind.
 Sch—Schwarz Wheel Co., Phila., Pa.
 Sml—Smith Wheel, Inc., Syracuse, N. Y.
 StM—St. Marys Wheel Co., St. Marys, O.
 Std—Standard Wheel Co., Terre Haute, Ind.
 Van—Van Wheel Corp., Oneida, N. Y.
 Wal—Walker Axle Co., Chicago, Ill.
 Way—Wayne Wheel Co., Newark, N. Y.
 Whit—Whitcomb Wheel Co., Kenosha, Wis.

Rim Equipment:

Fir—Firestone Steel Products Co., Akron, Ohio.
 Gdy—Goodyear Tire & Rubber Co., Akron, Ohio.
 Hay—Hayes Wheel Co., Jackson, Mich.
 Jax—Jaxon Steel Prod. Co., Jackson, Mich.
 Kel—Kelsey Wheel Co., Detroit, Mich.
 Mil—Miller Rubber Co., Akron, Ohio.
 Non—None Supplied.

Manufacturers and Models Included in the Specification Tables

List Includes Manufacturers of Buses and Electric Trucks

How Manufacturer Sells

| Trade Name | Capacity | Name | Address | Nation-ally | Locally | Branches | Distribu-tors | Dealers |
|--------------------|------------------------------------|--|------------------------------------|-------------|---------|--------------------|---------------|---------|
| Ace | 2½-Bus | American Motor Truck Co. | Newark, Ohio | ..... | Yes | ..... | ..... | ..... |
| Acme | 1, 1½, 2, 2½, 3, 4, 5, 6½-Bus | Acme Motor Truck Co. | Cadillac, Mich. | ..... | ..... | ..... | ..... | ..... |
| Acorn | 2½, 4 | Acorn Motor Truck Co. | Chicago, Ill. | No | Yes | No | No | No |
| American-La France | 2½, 3½, 5, 6, 7-T. T. | American-La France Fire Engine Co. | Elmira, N. Y. | ..... | ..... | ..... | ..... | ..... |
| Armleder | 1½, 2½, 3½ | O. Armleder Motor Truck Co. | Cincinnati, Ohio | Yes | ..... | 1-N. Y. State only | ..... | ..... |
| Atterbury | 1½, 2½, 3½, 5 | Atterbury Motor Car Co. | Buffalo, N. Y. | ..... | ..... | ..... | ..... | ..... |
| Autocar | 1, 1¼, 1½, 2, 2½, 3, 4, 5, 6-T. T. | Autocar Co. | Ardmore, Pa. | Yes | ..... | Yes | ..... | Yes |
| Available | 1½, 2, 2½, 3½, 5 | Available Truck Co. | Chicago, Ill. | No | Yes | No | ..... | ..... |
| Bessemer | 1, 1½, 2½, 4 | Bessemer Motor Truck Co. | Plainfield, N. J. | ..... | ..... | ..... | ..... | ..... |
| Bethlehem | 1, 2, 2½, 3½ | Bethlehem Motors Corp. | Allentown, Pa. | ..... | ..... | ..... | ..... | ..... |
| Betz | 1, 2½ | Betz Motor Truck Co. | Hammond, Ind. | ..... | ..... | ..... | ..... | ..... |
| Bridgeport | 1½, 2½, 4-Bus | Bridgeport Motor Truck Corp. | Stratford, Conn. | Yes | Yes | Yes | Yes | Yes |
| Brinton | 1½, 2½ | Brinton Motor Truck Co. | Philadelphia, Pa. | ..... | ..... | ..... | ..... | ..... |
| Brockway | 1, 1½, 2½, 3½, 5-Bus | Brockway Motor Truck Corp. | Cortland, N. Y. | Yes | ..... | Yes | Yes | Yes |
| Buffalo | 2, 3 | Buffalo Truck & Tractor Corp. | Clarence, N. Y. | ..... | ..... | ..... | ..... | ..... |
| C. T. Elec. | ½, ¾, 1, 2, 3, 3½, 5 | Commercial Truck Co. | Philadelphia, Pa. | Yes | No | Yes | Yes | Yes |
| Casco | 1 | Casco Motors, Inc. | Sanford, Me. | ..... | ..... | ..... | ..... | ..... |
| Chevrolet | ½, 1 | Chevrolet Motor Co. | Detroit, Mich. | ..... | ..... | ..... | ..... | ..... |
| Clinton | 1½, 2, 3, 4, 5 to 7-Bus | Clinton Motors Corp. | Reading, Pa. | ..... | ..... | ..... | ..... | ..... |
| Clydesdale | 1¼, 2½, 3½, 5, 7 | Clydesdale Motor Truck Co. | Clyde, Ohio. | Yes | No | No | Yes | Yes |
| Columbia | 1½, 2½, 3 | Columbia Motor Truck Co. | Pontiac, Mich. | ..... | ..... | ..... | ..... | ..... |
| Commerce | 1, 1¼, 2½-Bus | Commerce Motor Truck Co. | Ypsilanti, Mich. | Yes | No | No | Yes | Yes |
| Concord | 1, 2, 2½, 3 | Abbott-Downing Truck & Body Company | Concord, N. H. | ..... | ..... | ..... | ..... | ..... |
| Corbitt | 1, 1½, 2, 2½, 3, 4, 5 | Corbitt Motor Truck Co. | Henderson, N. C. | ..... | ..... | ..... | ..... | ..... |
| Day-Elder | 1½, 2, 2½, 3, 4, 5, 6-Bus | Day-Elder Motors Corp. | Newark, N. J. | Yes | ..... | ..... | Yes | Yes |
| DeMartini | 1½, 2, 3, 4 | De Martini Motor Truck Co. | San Francisco, Cal. | ..... | ..... | ..... | ..... | ..... |
| Diamond T | 1, 1¼, 1½, 2½, 3½, 5 | Diamond T Motor Car Co. | Chicago, Ill. | Yes | No | Yes | Yes | Yes |
| Diehl | 1, 1½ | Diehl Motor Truck Works | Philadelphia, Pa. | ..... | ..... | ..... | ..... | ..... |
| Dixon | 1½, 2, 2½, 3½, 5 | Dixon Motor Truck Co. | Altoona, Pa. | ..... | Yes | ..... | ..... | ..... |
| Dodge Brothers | ¾ | Dodge Brothers, Inc. | Detroit, Mich. | ..... | ..... | ..... | ..... | ..... |
| Dorris | 1, 2½, 3½ | Dorris Motor Car Co. | St. Louis, Mo. | ..... | ..... | ..... | ..... | ..... |
| Double Drive | 3 | Double Drive Truck Co. | Benton Harbor, Mich. | ..... | ..... | ..... | ..... | ..... |
| Duplex | 1, 1½, 2, 2½, 3½-Bus | Duplex Truck Co. | Lansing, Mich. | Yes | ..... | No | ..... | Yes |
| Eagle | 1¼, 2 | Eagle Motor Truck Corp. | St. Louis, Mo. | ..... | ..... | ..... | ..... | ..... |
| F. W. D. | 3 | Four-Wheel Drive Auto Co. | Clintonville, Wis. | Yes | ..... | Yes | ..... | Yes |
| Fageol | 2, 3, 4, 6-Bus | Fageol Motors Co. | Oakland, Cal. | Yes | No | ..... | ..... | ..... |
| Federal | 1, 1½, 2, 2½, 4, 5-Bus, T. T. | Federal Motor Truck Co. | Detroit, Mich. | ..... | ..... | ..... | ..... | ..... |
| Fifth Avenue | Bus | Fifth Avenue Coach Co. | New York City. | ..... | ..... | ..... | ..... | ..... |
| Ford | 1 | Ford Motor Co. | Highland Park, Mich. | Yes | No | Yes | No | Yes |
| Front Drive | 1½ | Double Drive Truck Co. | Benton Harbor, Mich. | ..... | ..... | ..... | ..... | ..... |
| Fulton | 1, 2 | Fulton Motors Corp. | Farmingdale, N. Y. | ..... | ..... | ..... | ..... | ..... |
| G. M. C. | 1, 2½, 3½, 5-T. T. | General Motors Truck Co. | Pontiac, Mich. | ..... | ..... | ..... | ..... | ..... |
| G. W. W. | 1½, 2 | Wilson Truck Mfg. Co. | Henderson, Iowa | ..... | ..... | ..... | ..... | ..... |
| Garford | 1, 1½, 4, 5, 7½-Bus | Garford Motor Truck Co. | Lima, Ohio | ..... | ..... | ..... | ..... | ..... |
| Gary | 1, 2, 2½, 3, 3½, 5 | Gary Motor Corp. | Gary, Ind. | ..... | ..... | ..... | ..... | ..... |
| Gotfredson | 1, 1½, 2, 3, 4, 5 | Gotfredson Truck Corp. | Detroit, Mich. & Walkerville, Ont. | Yes | ..... | Yes | Yes | ..... |
| Graham | 1, 1½-Bus | Graham Brothers | Detroit, Mich. | ..... | ..... | ..... | ..... | ..... |
| Gramm-Bernstein | 1, 1¼, 1½, 2, 2½, 3, 3½, 4, 5, 6 | Gramm-Bernstein Motor Truck Co. | Lima, Ohio | ..... | ..... | ..... | ..... | ..... |
| Grass Premier | 1, 1½, 2, 2½, 3½ | Grass Premier Truck Co. | Sauk City, Wis. | No | Yes | No | No | No |
| Guildler | 1, 1½, 2, 3, 4, 5, 6-Bus | Guildler Engineering Co. | Poughkeepsie, N. Y. | ..... | ..... | ..... | ..... | ..... |
| Hahn | 1¼, 1½, 2, 2½, 3, 5 | Hahn Motor Truck Co. | Hamburg, Pa. | Yes | Yes | ..... | ..... | ..... |
| Harvey | 2½, 3½, 7, 10-T. T. | Harvey Motor Truck Co. | Harvey, Ill. | No | Yes | Yes | No | No |
| Hawkeye | 1½, 2½, 3½ | Hawkeye Truck Co. | Sioux City, Iowa | ..... | ..... | ..... | ..... | ..... |
| Hug | 1½, 2, 2½ | Hug Company | Highland, Ill. | Yes | ..... | ..... | Yes | ..... |
| Independent | 1, 1½, 2½ | Independent Motor Truck Co., Inc. | Davenport, Ia. | ..... | ..... | ..... | ..... | ..... |
| Indiana | 1, 1½, 2, 2½, 3½, 5 | Indiana Truck Corp. | Marion, Ind. | Yes | Yes | Yes | Yes | Yes |
| International | 1, 1½, 2, 3, 5-Bus | International Harvester Co. of America | Chicago, Ill. | ..... | ..... | ..... | ..... | ..... |
| Kankakee | 2½ | Kankakee Motor Truck Co. | Kankakee, Ill. | ..... | ..... | ..... | ..... | ..... |
| Kearns | 1, 2, 3½, 5 | Kearns-Dughe Motors Co. | Danville, Pa. | ..... | ..... | ..... | ..... | ..... |
| Kelland (Elec.) | ½, ¾, 1 | Kelland Motor Car Co. | Newark, N. J. | No | Yes | No | No | No |
| Kelly-Springfield | 1½, 2, 2½, 3½-5-7 | Kelly-Springfield Motor Truck Co. | Springfield, Ohio | Yes | No | Yes | Yes | Yes |

| Trade Name | Capacity | Name | Address | How Manufacturer Sells | | | | |
|-------------------|------------------------------|-------------------------------------|----------------------------|------------------------|---------|--------------------|---------------|---------|
| | | | | Nation-ally | Locally | Branches | Distribu-tors | Dealers |
| Kenworth | 1½, 3, 3½ | Kenworth Motor Truck Corp. | Seattle, Wash. | No | Yes | No | ..... | Yes |
| Kimball | 2, 2½, 4, 5 | Kimball Motors Corp. | Los Angeles, Cal. | ..... | ..... | ..... | ..... | ..... |
| King Zeitler | 1, 1½, 2½, 3½, 5 | King Zeitler Co. | Chicago, Ill. | ..... | ..... | ..... | ..... | ..... |
| Kissel | 1, 1½, 2½, 4-Bus | Kissel Motor Car Co. | Hartford, Wis. | ..... | ..... | ..... | ..... | ..... |
| Kleiber | 1½, 2½, 3½, 5 | Kleiber Motor Truck Co. | San Francisco, Cal. | ..... | ..... | ..... | ..... | ..... |
| Krebs | 1¼, 2½, 3½, 5 | Krebs Motor Truck Co. | Bellevue, Ohio | Yes | No | No | Yes | Yes |
| Lange | 1½, 2½, 3½ | Lange Motor Truck Co. | Pittsburgh, Pa. | ..... | ..... | ..... | ..... | ..... |
| Lansden (Elec.) | ¾, 1, 2, 3½, 5, 6 | Lansden Company | Danbury, Conn. | Yes | ..... | 1-N. Y. State only | Yes | Yes |
| Larrabee-Deyo | 1¼, 1½, 2½, 3½-Bus | Larrabee-Deyo Motor Truck Co., Inc. | Binghamton, N. Y. | ..... | ..... | ..... | ..... | ..... |
| Luedinghaus | 1, 1½, 2½, 3½, 5 | Luedinghaus-Espenschied Wagon Co. | St. Louis, Mo. | ..... | ..... | ..... | ..... | ..... |
| Maccar | 1¼, 2, 3, 4, 5 | Maccar Truck Co. | Scranton, Pa. | No | Yes | 4 | Yes | Yes |
| Mack | 1½, 2, 2½, 3½, 5, 6½, 7½-Bus | International Motor Co. | New York, N. Y. | Yes | ..... | 86 | ..... | Yes |
| Mason Road King | 1½-Bus | Mason Motor Truck Co. | Flint, Mich. | ..... | ..... | ..... | ..... | ..... |
| Master | 1¼, 1½, 2½, 3½, 5, 5½-Bus | Master Motor Truck Mfg. Co. | Chicago, Ill. | ..... | ..... | ..... | ..... | ..... |
| Menominee | 1, 1¼, 1½, 2½, 3½, 5-Bus | Menominee Motor Truck Co. | Clintonville, Wis. | ..... | ..... | ..... | ..... | ..... |
| Moreland | 1, 1½, 2, 3, 5 | Moreland Motor Truck Co. | Burbank, Cal. | ..... | ..... | ..... | ..... | ..... |
| Nash | 1, 2, 2½ | Nash Motors Co. | Kenosha, Wis. | Yes | No | No | Yes | Yes |
| National | 2, 3, 3½, 4 | National Steel Car Corp., Ltd. | Hamilton, Ont., Canada | ..... | ..... | ..... | ..... | ..... |
| Nelson-LeMoon | 1, 1½, 2, 2½, 3½, 5 | Nelson & Le Moon | Chicago, Ill. | ..... | ..... | ..... | ..... | ..... |
| Netco | 2, 2½, 3, 4 | New England Truck Co. | Fitchburg, Mass. | ..... | ..... | ..... | ..... | ..... |
| Noble | 1, 1½, 2, 2½, 3, 3½, 4 | Noble Motor Truck Co. | Kendallville, Ind. | ..... | ..... | ..... | ..... | ..... |
| Northway | 1¼, 2, 3½ | Northway Motors Corp. | Natick, Mass. | ..... | ..... | ..... | ..... | ..... |
| O. B. (Elec.) | 2, 3½, 5 | O. B. Electric Vehicles, Inc. | Long Island City, N. Y. | ..... | ..... | ..... | ..... | ..... |
| O. K. | 1, 1½, 2, 2½, 3½ | Nolan Truck Co. | Okay, Okla. | ..... | ..... | ..... | ..... | ..... |
| Ogden | 1, 1½, 2½, 3½, 5 | Ogden Truck Co. | Chicago, Ill. | ..... | ..... | ..... | ..... | ..... |
| Old Reliable | 2½, 3½, 5, 6 | Old Reliable Motor Truck Co. | Chicago, Ill. | ..... | ..... | ..... | ..... | ..... |
| Oneida | 2, 2½, 3½, 5 | Oneida Manufacturing Co. | Green Bay, Wis. | ..... | ..... | ..... | ..... | ..... |
| Oshkosh | 2, 2½, 4 | Oshkosh Motor Truck Mfg. Co. | Oshkosh, Wis. | ..... | ..... | ..... | ..... | ..... |
| Overland | ½ | Willys-Overland Co. | Toledo, Ohio | Yes | Yes | 24 | Yes | Yes |
| Patriot | 1, 2, 3 | Patriot Mfg. Co. | Havelock, Neb. | Yes | No | No | Yes | Yes |
| Penn | 1, 2 | Penn Motors Corp. | Philadelphia, Pa. | ..... | ..... | ..... | ..... | ..... |
| Philadelphia | Bus | Phila. Motor Coach Co. | Philadelphia, Pa. | ..... | ..... | ..... | ..... | ..... |
| Motor Coach | 2, 3, 4, 5, 6, 7½ | Pierce-Arrow Motor Car Co. | Buffalo, N. Y. | Yes | No | ..... | Yes | Yes |
| Pierce-Arrow | T. T. | Pioneer Truck Co. | Chicago, Ill. | ..... | ..... | ..... | ..... | ..... |
| Pioneer | 1 | Power Truck & Tractor Co. | St. Louis, Mo. | ..... | ..... | ..... | ..... | ..... |
| Power | 1½, 2½, 3½ | Rainier Motor Corp. | Long Island City, N. Y. | No | Yes | No | Yes | Yes |
| Rainier | ¾, 1, 1½, 2, 2½, 3½, 5, 6 | Red Ball Transit Co. | Indianapolis, Ind. | ..... | ..... | ..... | ..... | ..... |
| Red Ball | 3 | Reo Motor Car Co. | Lansing, Mich. | ..... | ..... | ..... | ..... | ..... |
| Reo | 1¼-Bus | Republic Motor Truck Co., Inc. | Alma, Mich. | Yes | No | No | Yes | Yes |
| Republic | 1¼, 1½, 2, 3, 4½-Bus | Rowe Motor Mfg. Co. | Lancaster, Pa. | ..... | ..... | ..... | ..... | ..... |
| Rowe | 2½, 3, 4, 5 | Ruggles Motor Truck Co. | Saginaw, Mich. | ..... | ..... | ..... | ..... | ..... |
| Ruggles | ¾, 1¼, 1½, 2, 2½, 3 | Advance Rumely Thresher Co. | Laporte, Ind. | ..... | ..... | ..... | ..... | ..... |
| Rumely | 1½ | Sandow Motor Truck Co. | Chicago Heights, Ill. | Yes | No | ..... | ..... | ..... |
| Sandow | 1, 1½, 2, 2½, 3½, 5 | Sanford Motor Co. | Syracuse, N. Y. | Yes | ..... | ..... | Yes | ..... |
| Sanford | 1, 1½, 2½, 3½, 5 | Adolph Saurer, Inc. | New York, N. Y. | ..... | Yes | Yes | No | Yes |
| Saurer | 6½, T. T. | G. A. Schacht Motor Truck Co. | Cincinnati, Ohio | Yes | ..... | Yes | ..... | Yes |
| Schacht | 1½, 2, 2½, 3, 4, 5 | Selden Truck Corp. | Rochester, N. Y. | ..... | ..... | ..... | ..... | ..... |
| Selden | 1¼, 1½, 2½, 3, 3½, 5-Bus | Service Motors, Inc. | Wabash, Ind. | Yes | ..... | Yes | Yes | Yes |
| Service | 1¼, 1½, 2, 3, 4, 5 | The Six Wheel Co. of Phila. | Philadelphia, Pa. | ..... | ..... | ..... | ..... | ..... |
| Six Wheel Bus | Bus | Standard Motor Truck Co. | Detroit, Mich. | Yes | No | No | Yes | Yes |
| Standard | 1¼, 1½, 2½, 3½, 5, 6 | Steinmetz Electric Motor Car Corp. | Arlington, Balti-more, Md. | Yes | ..... | ..... | Yes | Yes |
| Steinmetz (Elec.) | 1½, 2, 2½, 3½, 5 | Sterling Motor Truck Co. | Milwaukee, Wis. | Yes | ..... | Yes | Yes | Yes |
| Sterling | 1½, 2½, 3½, 5 | Stewart Motor Corp. | Buffalo, N. Y. | Yes | ..... | Yes | Yes | Yes |
| Stewart | 1, 1½, 2½, 3, 3½, 4 | Stoughton Wagon Co. | Stoughton, Wis. | ..... | ..... | ..... | ..... | ..... |
| Stoughton | 1¼, 1½, 2, 3, 2½, 3½, 5 | O'Connell Motor Truck Co. | Waukegan, Ill. | No | Yes | No | No | No |
| Super Truck | 1½, 2, 3 | Traffic Motor Truck Corp. | St. Louis, Mo. | ..... | ..... | ..... | ..... | ..... |
| Traffic | 1, 1½, 2, 3½, 5 | Transport Truck Co. | Mt. Pleasant, Mich. | ..... | ..... | ..... | ..... | ..... |
| Transport | 1½, 2, 3, 5 | Traylor Eng. & Mfg. Co. | Allentown, Pa. | ..... | ..... | ..... | ..... | ..... |
| Traylor | 1, 1½, 2, 2½ | Triangle Motor Truck Co. | St. Johns, Mich. | ..... | ..... | ..... | ..... | ..... |
| Triangle | 2½, 3, 3½ | Minneapolis Steel & Machinery Co. | Minneapolis, Minn. | Yes | No | Yes | Yes | Yes |
| Twin City | U. S. | United States Motor Truck Co. | Cincinnati, Ohio | ..... | ..... | ..... | ..... | ..... |
| U. S. | 1¼, 1½, 2½, 3, 4, 5-7 | Union Motor Truck Co. | Bay City, Mich. | Yes | Yes | ..... | ..... | Yes |
| Union | 1½, 2½, 4, 6-Bus | United Motor Products Co. | Grand Rapids, Mich. | Yes | ..... | Yes | Yes | Yes |
| United | 1, 1½, 2, 2½, 3, 3½ | Wachusett Motors, Inc. | Fitchburg, Mass. | ..... | ..... | ..... | ..... | ..... |
| Wachusett | 1, 1½, 2, 2½ | Walker Vehicle Co. | Chicago, Ill. | ..... | ..... | ..... | ..... | ..... |
| Walker (Elec.) | ½, ¾, 1, 2, 3½, 5 | Walker Johnson Truck Co. | Woburn, Mass. | ..... | ..... | ..... | ..... | ..... |
| Walker Johnson | 1½, 2½, 3 | Walter Motor Truck Co. | Long Island City, N. Y. | ..... | ..... | ..... | ..... | ..... |
| Walter (Elec.) | T. T. | Ward Motor Vehicle Co. | Mt. Vernon, N. Y. | Yes | ..... | Yes | Yes | Yes |
| Ward (Elec.) | 750 lbs. to 7 ton | Ward La France Truck Corp. | Elmira, N. Y. | Yes | No | Yes | ..... | Yes |
| Ward La France | ¾, 1, 2, 3½, 5-Bus | White Co. | Cleveland, Ohio | ..... | ..... | ..... | ..... | ..... |
| White | ¾, 2, 3½, 5-Bus | Wilcox Trux, Inc. | Minneapolis, Minn. | ..... | ..... | ..... | ..... | ..... |
| Wilcox | 1, 1½, 2½, 3½, 5 | Winther Motor Co. | Kenosha, Wis. | ..... | ..... | ..... | ..... | ..... |
| Winther | 1½, 2½, 3, 3½, 5, 7 | Witt Will Co., Inc. | Washington, D. C. | No | Yes | No | No | No |
| Witt Will | 1½, 2, 2½, 3, 4, 5 | Yellow Cab Mfg. Co. | Chicago, Ill. | ..... | ..... | ..... | ..... | ..... |
| Yellow Cab | ¾, 1-Bus |  |  | ..... | ..... | ..... | ..... | ..... |

Waukesha Six for Buses

SEVERAL advanced features are incorporated in the new 6-cylinder Waukesha bus engine. Liberal use and excellent distribution of aluminum alloy have produced a combination of relatively light weight and great rigidity. Although having six cylinders of $4\frac{1}{2}$ in. dia. and a stroke of $5\frac{3}{4}$ in., this engine ready for delivery weighs but 1050 lbs. This weight is low when it is considered that the engine is designed to meet the heavy-duty conditions of bus service.

Among the features are Ricardo head, the mounting of the tappet carriers in the aluminum crankcase, which is unusually deep, cylinders cast in pairs with comparatively short water jackets and long barrel extensions housed within the crankcase. The four-bearing crankshaft has unusually heavy sections throughout and is made of chrome nickel steel. Particular attention has been paid to the crankshaft and its characteristics of rigidity and therefore, silence.

Externally, the engine is smooth and symmetrical. Crankcase, oil pan and detachable bell housing are cast aluminum, while the timing gear cover, cylinder blocks and detachable heads are cast-iron.

Internally, four well-ribbed bulkheads carry the main bearings. The connecting rods are forged from .35 carbon steel and carry 2 bronze piston pin bearings. The pins are locked in light alloy pistons.

Intake ports are siamesed in each block, while the exhaust ports are individual. Silchrome head valves of 2-in. clear dia. are centered in inserted cast-iron bushings. The intake and exhaust manifolds are located at the ports.

Mushroom tappets are grouped in carriers for each pair of cylinders and the three carriers are bolted and doweled against finished bosses, which are in turn located on a wall which runs full length of the crankcase interior. A detachable plate secured by one stud covers each tappet carrier and permits easy adjustment or removal. The crankshaft is mounted in four bearings which are bronze bushings.

Helical metallic gears are located at the front end. The crankshaft gear drives an idler, which in turn drives the accessory shaft at the left side of the engine and the camshaft gear on the opposite side. The camshaft gear drives the generator pinion.

The oil pump, located on the center line of the third main and camshaft bearings, counting from the front, delivers the oil to fittings on each of the bulkheads by copper tubing. At each of these bulkheads,

these lines are again connected to the main and camshaft bearings. This arrangement, in conjunction with a drilled crankshaft, insures full pressure lubrication for all of the bearings.

Large bronze bushings carry the accessory drive shaft in a barrel-shaped projection at the left front of the engine. This projection is fitted with a breather and filler cap at the top and a bracket for an ignition head mounting at the rear. The drive shaft extends to the rear and is coupled to the shaft of a centrifugal pump, which is carried in saddles machined in two projections from the crankcase wall.

Graham's Latest for Dump Bodies

GRAHAM Brothers have brought out a new 124-in. wheelbase chassis designed especially for use with dump bodies. The new model, with 34 x 5-in. front and 36 x 6-in. rear pneumatic tires on wood wheels, is priced at \$1400. A special road-builder's model, equipped with 30 x 5-in. front and 34 x 7-in. rear pneumatic tires on steel spoke wheels, is also offered at \$1470. The net load capacity of the new unit is $1\frac{1}{2}$ tons.

As far as the power plant, front springs,

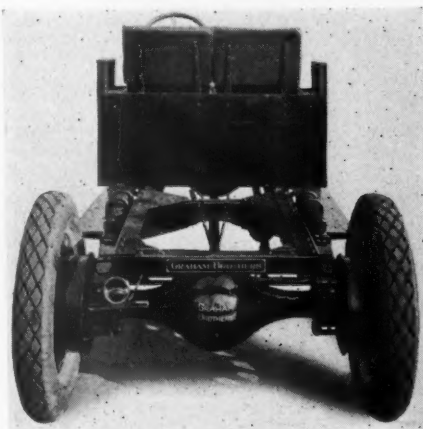
steering gear, front axle, and so forth are concerned, the dump model is the same as the standard $1\frac{1}{2}$ -ton Graham truck. The frame and rear springs, however, are radically different.

The frame side rails extend only to the rear axle, as any overhang would interfere with the operation of a gravity-type dump body. These members are of pressed steel $\frac{3}{16}$ in. thick and with a maximum depth and flange width of 6 in. and $3\frac{3}{4}$ in. respectively. The tops of the side rails are flat but the under sides taper upward at the rear to provide additional clearance over the rear axle. Cross members are stiffened by unusually heavy gussets.

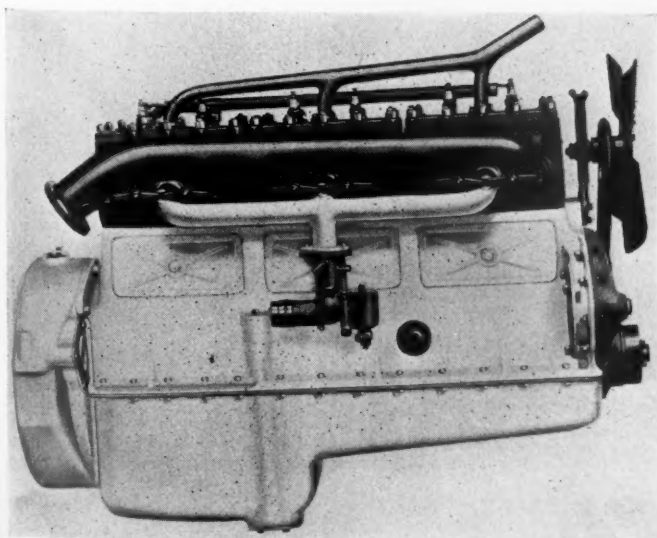
The rear spring suspension consists of two quarter elliptic cantilever springs on each side. At their forward ends they are clamped to heavy brackets riveted to the side rails. The rear ends of the upper and lower springs on each side are provided with eyes and are secured by bolts to the tops and bottoms of the spring seats respectively. The spring seats are bolted to the axle housing.

The rear axle is similar to the unit used on other Graham Brothers models except that it has two roller bearings supporting the axle shafts at their outer ends. Double internal band brakes $2\frac{1}{2}$ in. wide acting on 16 in. drums, of the same design used on other models of the line, are provided. The rear axle reduction is 6.28 to 1.

On the lower-priced model, equipment includes electric starting and lighting system, battery ignition, front fenders, splash guards, running-boards and lamps. The road builder's model is furnished with magneto ignition and does not have starting and lighting equipment.

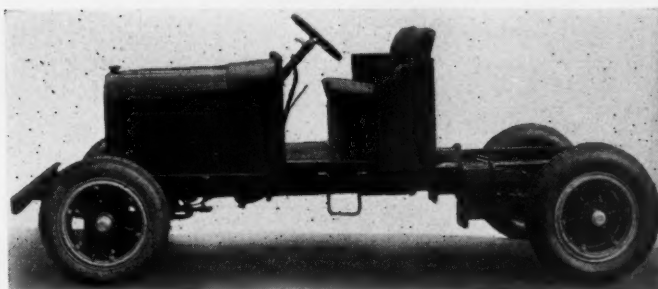


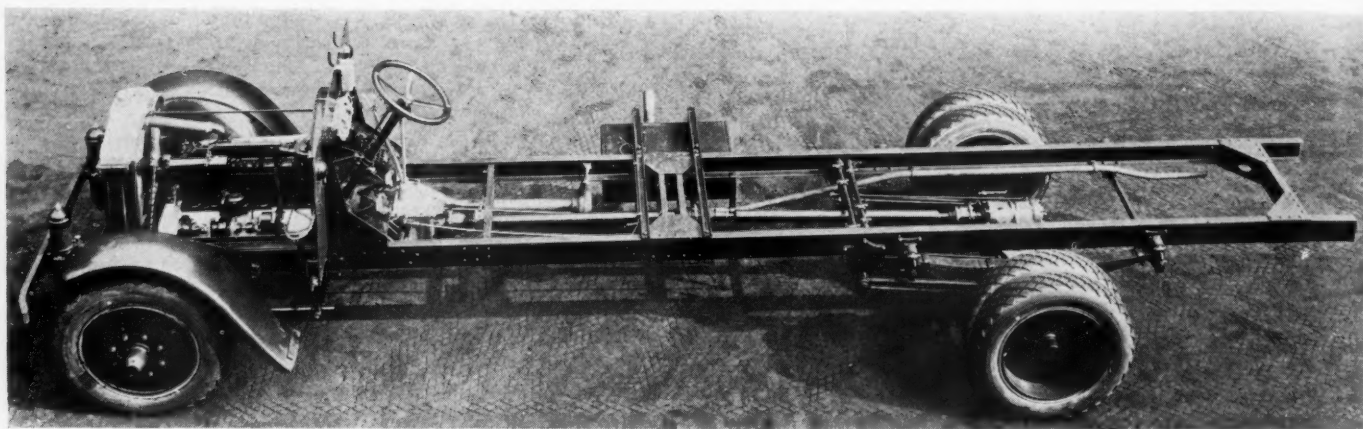
Rear View, Showing Spring and Frame Construction



Left: Right Side of the New Waukesha Bus Engine

Below: Graham Special Road Builder's Model, \$1400





Showing the Plan of Assembly and Even Disposition of Units on the Lighter Capacity Rehberger Models

Interchangeability Features Rehberger Line

IN the line of trucks recently put into production by Arthur Rehberger & Son, of Newark, N. J., are numerous engineering details which make for durability and minimum service costs. The merchandising value of distinctive appearance has not been lost sight of and has been given considerable attention resulting in units that attract the eye.

While assembled mainly from parts made by well-known manufacturers the trucks, which are built in three, four and five-ton sizes, incorporate a number of elements in assembly and chassis construction that are somewhat a departure from regular practice. Various service requirements are met with a minimum of difficulty by reason of a wheelbase that can be varied to meet any condition. Bodies are supplied to meet the specific needs of a prospect without undue waste of time.

Servicing of the trucks is facilitated because of interchangeability of parts wherever capacity requirements do not interfere.

Prominent among the features are the radius rods, which are steel castings of

H-section with tapered holes in each end. Split bronze bushings are fitted into these holes. The outer diameter of these bushings fits into the tapered holes while the cylindrical bore fits the pin on which the rod is pivoted. Turning up the nut on the pin causes the bushings to contract and take up wear as it occurs without renewal of the bushing. The rear end of the radius rod is supported on a pin carried in a bracket bolted to the spring saddle cast-

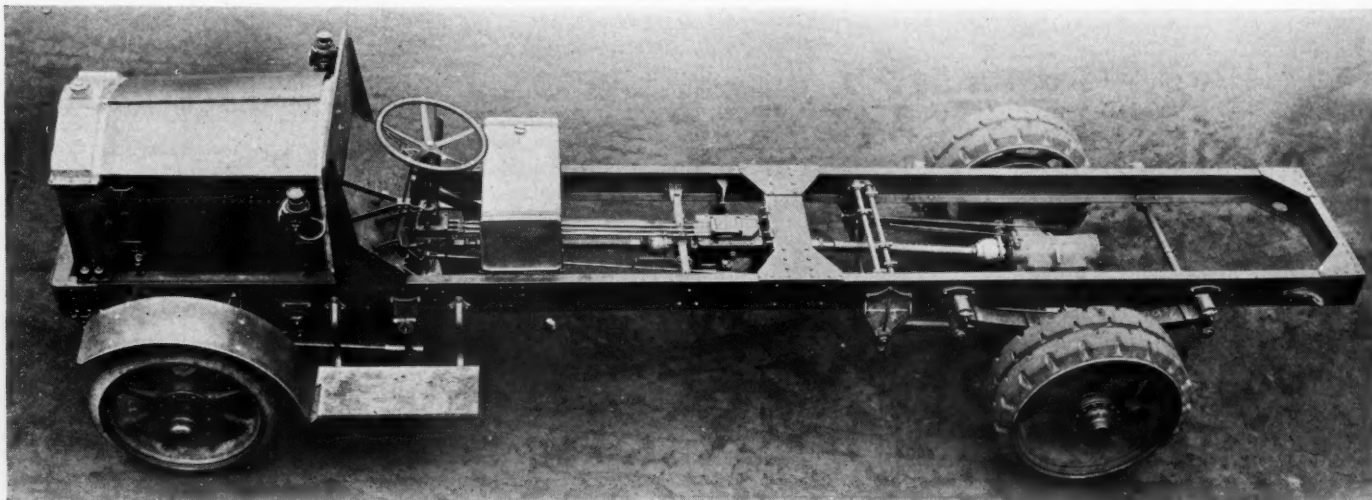
ings. The spring saddle is not cast integral with the rear axle but is made in two halves and bolted to machined surfaces near the ends of the axle housing. To insure equal braking on both sides of the vehicle the brake rods are carried back as near to the center line of the chassis as practical. The lay-out prevents opportunity for twisting in the shaft to cause unequal brake application. A serviceable feature in connection with the braking system is the provision for convenient adjustment.

With the exception of the 5-ton model, which has an amidships transmission, the propeller shaft is divided and is supported by a self-aligning bearing from the center cross-member. This bearing is fully enclosed and protected against entry of foreign matter by felt washers.

All points where the opportunity for efficient lubrication is rather uncertain, for example, on brake cross shafts, pedal shaft and the like, Nigrum oilless bushings are employed. Spring shackle bolts and the pins used elsewhere where the loads are heavy are made of chrome nickel heat-treated steel. Such pins are locked



Ornamental Radiator Top and Aluminum Alloy Instrument Panel



The Transmission is Mounted Amidships in the 5-Ton Rehberger

"The I-Beam Type of Wheel Was the Strongest and Most Resilient Metal Wheel Tested"

*From Report of the U. S. Bureau of Standards Tests,
S. A. E. Journal, August, 1924*

THIS is the conclusion arrived at by the U. S. Bureau of Standards from a series of Laboratory Strength-Tests recently conducted by them on six different types of motor truck wheels. The tests were designed to cover the essential requirements of motor truck wheels in severe service.

Other extracts from the S. A. E. Journal report of the tests follow:

"This wheel had the highest proportional limit."

"The proportional limit is of relatively greater importance than the ultimate strength because, if the wheel is stressed above the proportional limit, the wheel becomes permanently deformed, and this would tend to render the wheel unserviceable."

"The resiliency and the resiliency per pound were higher for the I-beam type of wheel than for any other metal wheel; to resist side thrust or skid, this wheel is the strongest and most resilient."

At the end of these severe tests, the Bethlehem Wheel was the only wheel not permanently deformed and the only one that could be reconditioned and put back in service.

The results of these tests are unbiased evidence that the Bethlehem Rolled Steel Truck Wheel possesses to a greater degree than any other type of wheel the qualities that give prolonged service.

BETHLEHEM STEEL COMPANY, General Offices: BETHLEHEM, PA.

Sales Offices in the following cities:

| | | | | | | | |
|----------|------------|--------------|-----------|------------|-----------|---------------|------------|
| New York | Boston | Philadelphia | Baltimore | Washington | Atlanta | Buffalo | Pittsburgh |
| | Cincinnati | Cleveland | Detroit | Chicago | St. Louis | San Francisco | |

BETHLEHEM ROLLED STEEL TRUCK WHEELS



Full report of Bureau of Standards tests will gladly be sent on request, together with a copy of our new catalog showing improved designs of truck wheels.

securely against rotation by seating in split bearings with tangent bolt fastening. This construction has the feature of preventing enlargement of the hole, makes it possible to take up wear and permits easy removal of the pin, should these bushings require renewal.

The frame consists of rolled section channel rails with hot riveted cross members and gusset plates. The front cross member forms a bumper in which is also incorporated an oak filler block for reinforcement.

A novel detail in the radiator is the top casting which is of aluminum made in substantial and ornamental designs. For the models carrying electric equipment an aluminum instrument board with contour similar to that of the radiator is

fitted to the dash. The pressure gage and choke handle are mounted separately at each end of the panel. The panel carries an ammeter, lighting switch, magneto switch and cowl light and along the lower edge two fuses are in plain sight. Thus all electrical connections are exposed.

Three-point suspension is employed for the engine as well as the gearset, when the latter is mounted amidships. A supplementary gearset can be furnished for the 5-ton job if desired. This provides an extra set of four speeds, making that particular job adaptable to all road conditions.

The Rehberger models are composed of units made by Buda, Timken, Fuller, Gemmer, Van and Bush.

The chassis weight with standard wheel-

base is given as follows: 3-ton, 6460 lbs.; 4 ton, 7940 lbs.; 5 ton, 10,010 lbs. Standard equipment includes K P governor, Stromberg carburetor, Robert Bosch magneto.

The three-ton chassis has been modified somewhat for use in bus service. The changes include moving the front axle forward under radiator (in this case a Shuler drop axle is employed), use of Gruss air springs in front together with modified front and rear springs, pneumatic tires on Budd disk wheels, a lower frame and raked steering gear mounting. Frame at door is 29½ in. from ground with full load and 25-passenger body.

A two-ton model similar in construction to the heavier models will be marketed in the near future.

Commerce Announces New Super-Eleven Model

A ONE and a quarter ton truck known as the Super-Eleven is the latest addition to the Commerce line. The Commerce Motor Truck Co., Ypsilanti, Mich., in describing its new addition, explains that by virtue of certain constructional and assembling features unusual power and ability have been incorporated into the new unit. It has Bosch magneto ignition, a 12-plate Fuller clutch, and it well balanced throughout.

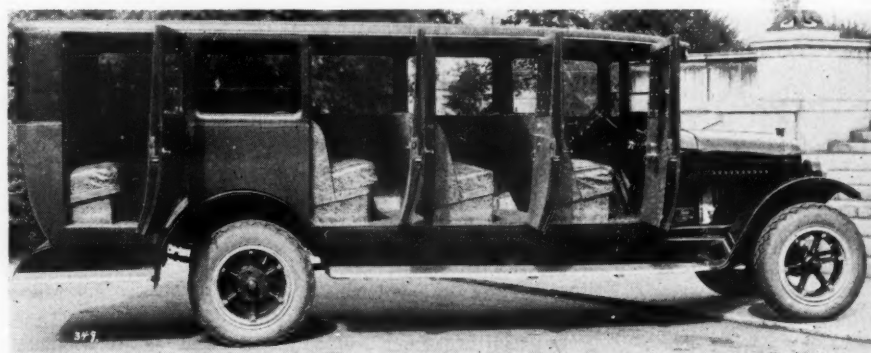
Use of special alloy steel in the axle house tubing is one of the factors making for strength with reduced weight, and unsprung weight of the chassis. A construction worthy of attention is the assembly of the ring gear to the differential body. It is effected by means of bolts instead of rivets. Only lateral strains are assumed by these bolts since all other strain is taken through driving lugs provided in the hub of the ring gear which fit into serrations in the differential body. Perfect fit is assured by grinding the back face of the ring gear and the face of the differential body contacting with it. Possibility of imperfect alignment between ring gear and pinion is said to be entirely eliminated by this construction. Better tooth contact is also obtained.

The engine is a 4¼ x 4½ Continental capable of developing of from 29 to 50 hp. It is mounted in unit and suspended from three points. Cooling system includes a centrifugal water pump operated by a water pump shaft operating at crankshaft speed. A gear type pump is used in the oiling system. Pressure feed is through drilled crankshaft to main bearings, connecting rod lower end bearings, piston pin bearings, camshaft and gear case. Carburetion is provided by a

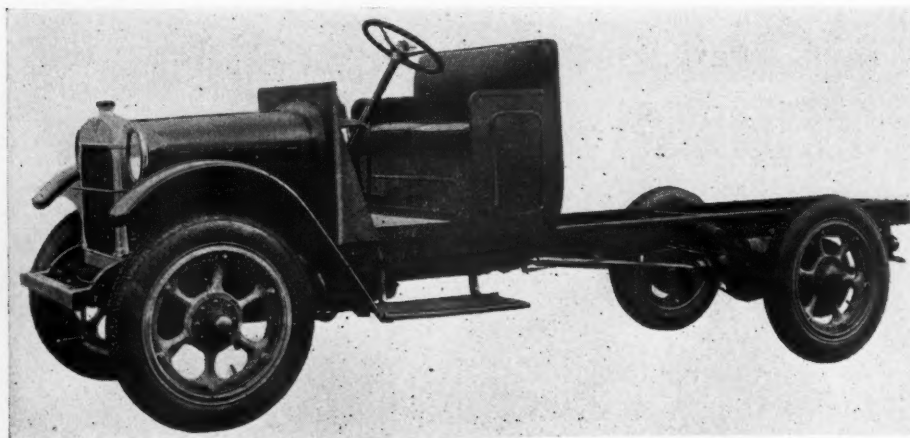
Zenith, float-feed, automatic type carburetor.

The transmission, which is Fuller make, provides three speeds forward and one reverse. Power is transmitted to a ¾-floating, spiral bevel gear type rear axle, through a two-piece tubular propeller shaft equipped with three universal joints. Internal and external brakes are employed. Steering is through a Ross, cam and lever type construction.

Standard equipment includes electric starting and lighting systems, horn, battery, bumper, driver's seat, front fenders and step, spare rim, and one set of tools in kit. The list price is \$1495 f. o. b., plus Federal tax.



Stewart Sedan Seats 18 Passengers; Seats Are Transverse



New Well-Balanced Commerce 1¼-Ton Chassis

Stewart Highway Sedan Just Out

The Stewart Highway Sedan, offered by Stewart Motor Corp., Buffalo, N. Y., is mounted on a model 17, 1½-ton speed-truck chassis, having a 160-in. wheelbase. The chassis includes 32 x 6 pneumatics, nickel-plated radiator and headlights, large gas tank in rear, vacuum feed, motometer and cap, front bumper, speedometer, four Houdaille shock absorbers, 4 x 5 Lycoming engine, multiple disk clutch and spiral bevel rear axle.

Equipment includes: Heater, three dome lights, two red and green signal lights, rear view mirror, buzzer signal system, tire carrier and windshield cleaner. Price complete on chassis and body, fully equipped, ready to run, \$3650 f. o. b., tax extra.



Riding Them Soft

MOST cars are driven with tires *under-inflated*. Part of the time at least. Under-inflation means easier riding—and much harder steering. Here again, the Ross Cam and Lever Steering Gear solves a problem that every manufacturer faces.

Write for the facts

ROSS GEAR AND TOOL COMPANY, 760 Heath Street, Lafayette, Indiana

ROSS
CAM and LEVER  **STEERING GEARS**
EASIER STEERING LESS ROAD SHOCK

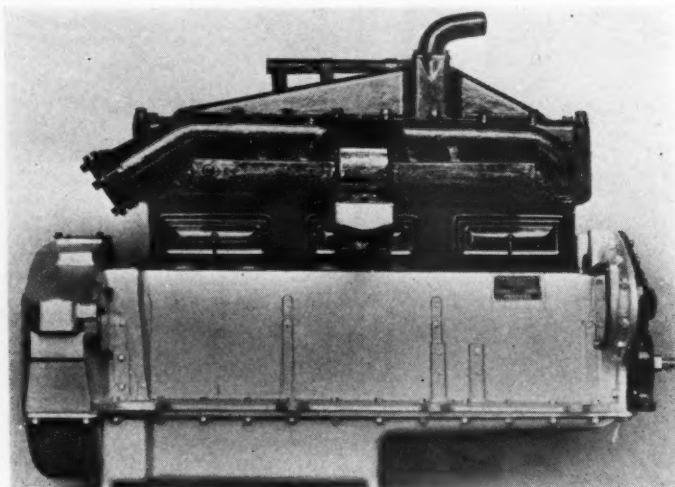
New Buda Six for Buses

THE Buda Co., Harvey, Ill., is now in production on a six-cylinder, L-head engine designed specifically for use in motor buses. Its 4-in. bore and 5½-in. stroke gives a piston displacement of 386.4 cu. in. and a horsepower rating of 38.4. The new unit is built for heavy duty service, and particular care has been taken in the design to provide for easy and economical maintenance.

The cylinder block and detachable head are gray iron castings with ample water-

of steel, and the idler and camshaft gears are of cast iron. Valves are operated by mushroom tappets, which are made accessible for adjustment by the removal of three cover plates. The valve springs are of the barrel type. The intake and exhaust valves have clear diameters of 1⅞ and 1¼ in. respectively. The seat angle is 45 deg.

Oil is supplied under pressure by a gear oil pump located in the base of the crankcase and driven by helical gears from the camshaft. Oil entering the pump is first filtered through a wire-mesh screen. It is delivered to a seamless steel distributing pipe cast in the crankcase, from which it passes to the main and camshaft bearings through ducts drilled in the bearing webs. Timing gears are



Buda's Latest Contribution, a Six-Cylinder Bus Engine

jacketing. Pry lugs are provided on the ends of the head so that it may be removed without damage to the gasket.

The crankcase and upper part of the flywheel bell housing forms an integral aluminum casting as does the lower portion of this housing and the oil pan. The crankcase is reinforced at points of greatest stress and additional rigidity is secured by extending it 3½ in. below the center line of the crankshaft. The oil pan can be conveniently drained by means of a cock which is operated from above. The oil level gage is of the bayonet type.

The crankshaft is a heavy steel forging, heat treated. On its rear end two oil thrower rings are machined to prevent oil leakage into the bell housing. It is supported in four bronze-backed, babbitt-lined bearings.

The four main crankshaft journals and the crankpins are all 2½ in. in diameter. The front and first and second intermediate main bearings, and the connecting rod bearings are all of the same length, 2¼ in. The rear main bearing is 3½ in. long. Connecting rods are heat treated, chrome vanadium steel forgings.

Pistons are of cast iron, well ribbed for cooling and fitted with three rings above the pin and a wiper ring below. The piston pin is locked in the piston bosses by a taper set screw registering with a groove machined in the pin and retained against endwise motion by snap rings. The camshaft and pump are driven by a train of helical gears. The gears on the crank and pump shafts are

lubricated by the overflow from the pressure-relief valve. Oil thrown off by the rings on the rear end of the crankshaft drains back to the reservoir in the oil pan by means of a return tube provided for the purpose.

Water is circulated by a centrifugal pump with bronze runner and bronze sleeve protecting the pump shaft. Intake and exhaust manifolds are separate gray-iron castings. The former is of the rectangular section, high turbulence type.

The engine is built for three-point suspension, the two rear supporting brackets being cast integral with the flywheel housing. The front support is in the form of a trunnion integral with the cast-iron timing gear cover. Six alloy steel bolts secure the cast-iron flywheel to a flange forged integral with the crankshaft.

Provision has been made for attaching starting and lighting equipment, and for

ignition by magneto, driven from the water pump shaft and supported by a bracket on the crankcase. Battery ignition may be employed if desired, as provision has been made for mounting the distributor on the water-pump driveshaft housing.

Field Produces New Sedan Bus Body

The new Sedan Bus Body produced by the Field Body Corp., Owosso, Mich., is designed to provide the lowest possible center of gravity and that general appearance of safety so desirable for passenger transportation.

The frame work is of air-seasoned white ash and oak, all joints tenoned, mortised, glued, ironed and bolted together. Pressed metal braces, gussets and plates are used for added strength. The sub-frame is of the underslung type, bringing the floor directly on top of the chassis frame. The body weight rests on strong iron out-riggers hung on the outside of the chassis frame and bolted to both body and frame.

Seats are constructed of reed or twisted fiber. Upholstering is of genuine leather, double cushions and slip-back cover are removable. All seats can be entirely removed or differently arranged to meet any requirements. They are securely fastened to the floor by the aid of curved hooks on front legs of seats, which hook securely to floor loops. To remove a seat it is only necessary to tilt the settee forward and disengage the hooks. Any desired tilt can be given the seats by adjusting the length of the rear legs to the settees. Another advantage in favor of the seats is their lightness. The cushions are double construction, used in a combination of cushion springs, Marshall springs and air, well padded and very soft.

Six large dome lights with two bulbs in each light or side lights over each seat provides interior illumination. The heating system consists of exhaust-guarded pipes and Petry valves. Ventilation is furnished by one cowl and two Superior roof ventilators.

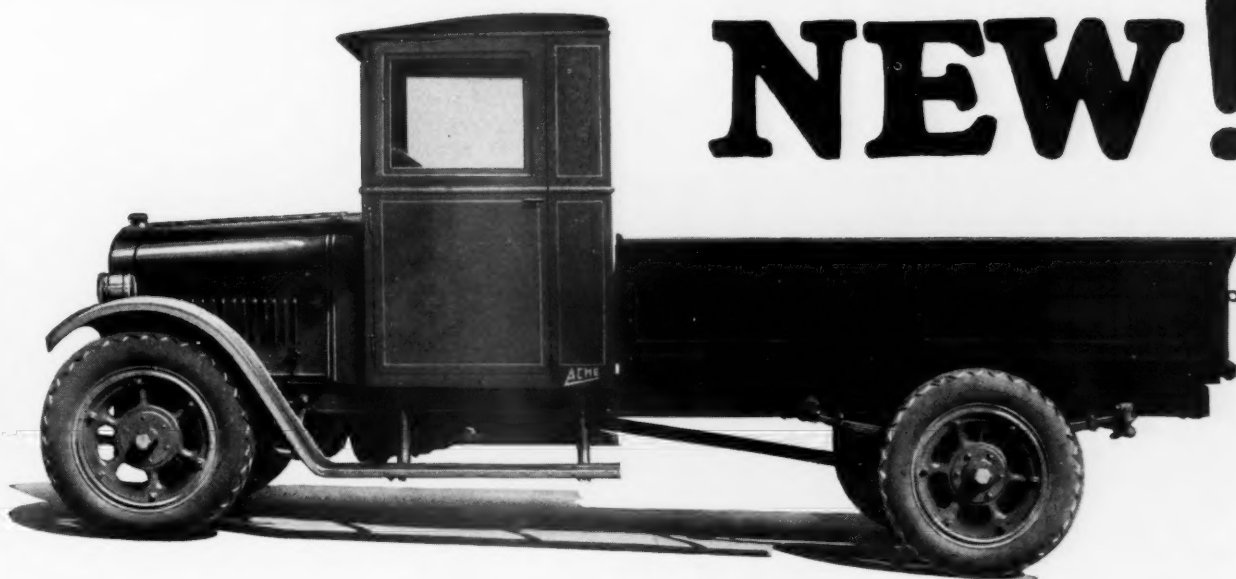
The windows, regulated by latest improved regulators, slide between felt-lined metal channels. Top edge is protected by metal lap and guard. Five doors are on right side, one on left side.



Field's Sedan Bus is Built in 17, 21 and 25 Passenger Capacities

ACME *Flyer*

NEW!



Tapping That "92% Market"

92% of the total number of trucks sold in 1923 were light trucks. Tapping this "92% Market" for the profits it holds is the job of the new Acme Flyer. It is doing it in a spectacular way, and building up new sales records for dealers, because it is meeting this "92% Market" four-square with the most remarkable list of units ever incorporated in a light truck.

The Acme Flyer is a business utility. Scores of merchants and industries in your own community will adopt Acme Flyer transportation. It is a noteworthy opportunity for you to sell this business utility without increasing overhead or sales expenditure. And the Acme Franchise offers excellent factory co-operation in making the Acme Flyer a leading seller in your town.

Send for full Acme Flyer specifications and details on the Acme Franchise today.

ACME MOTOR TRUCK COMPANY

538 Mitchell Street

CADILLAC, MICHIGAN



Nine Other Acme Models for Heavier Industrial Transportation

Trade-Mark Registered U. S. and Other Countries

Sheldon Announces New Front and Rear Axles for Buses

ONE of the most important problems that must be met in building an axle of semi-floating design for buses is that of providing a satisfactory location of wheel bearing, so as to eliminate the overhang when dual pneumatic tires are used. This overhang of dual pneumatics, if not provided for in designed bearings, results in excessive drive shaft breakage.

In the improved Sheldon worm drive, Type F-13 axle, recently announced by the Sheldon Axle & Spring Co., Wilkes-Barre, Pa., the design provides strength so located as to eliminate excessive strains on the driveshaft by placing the wheel bearings close to the center of the two tires. There is, therefore, no overhang, and the strain on the shafts and bearings is no greater than when single wheels are used.

give easy access for inspection. This cover also makes it possible to provide supports for the differential bearings to prevent distortion of the differential carrier from the side thrust of the worm on the wheel.

The thrust bearing is located at the front of the worm shaft, reversing the older practice in ball bearing worm shaft mounting. With the thrust bearing at the front of the shaft, all of the advantages of the rear location are retained, and in addition, these are gained:

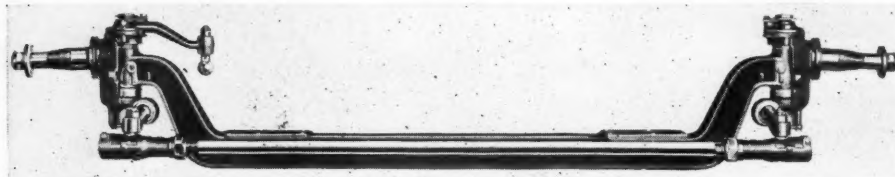
- A. The largest diameter of shaft is at the front, where it is subjected to the greatest strains.
- B. A shorter distance between bearings, reducing deflection of shaft to minimum.
- C. Lubrication of thrust bearing is

grade alloy steel, splined at wheel and differential ends. The brakes are of well-known and shoe type design.

Sheldon also offers new front axles especially designed for bus use. These axles are made with a low bed so the bus floor can be brought close to the ground, as required for quick loading and unloading of passengers, but they can also be furnished with a straight bed if preferred. Sheldon front wheel brakes can be attached without alteration.

The essentials for a satisfactory front axle for buses—durability, ease of steering, simplicity and low upkeep—have been investigated in this new design.

The axles are made in two sizes, one for light and one for heavy duty motor coaches. Both are of the Reverse Elliott type, the yoke being integral with the spindle instead of with the I-beam. Steering is as easy as on a touring car; the turning radius is shorter than usual, without increased stress in the knuckles.

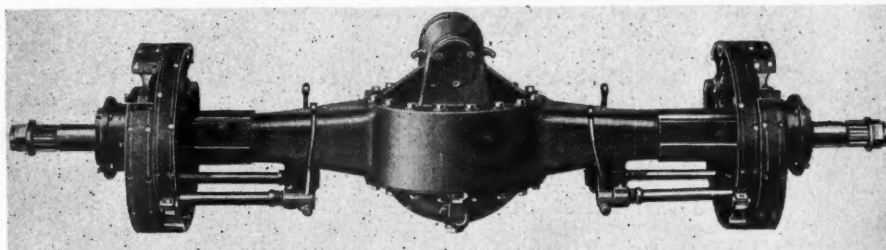


For Light and Heavy-Duty Types. Reverse Elliott Type

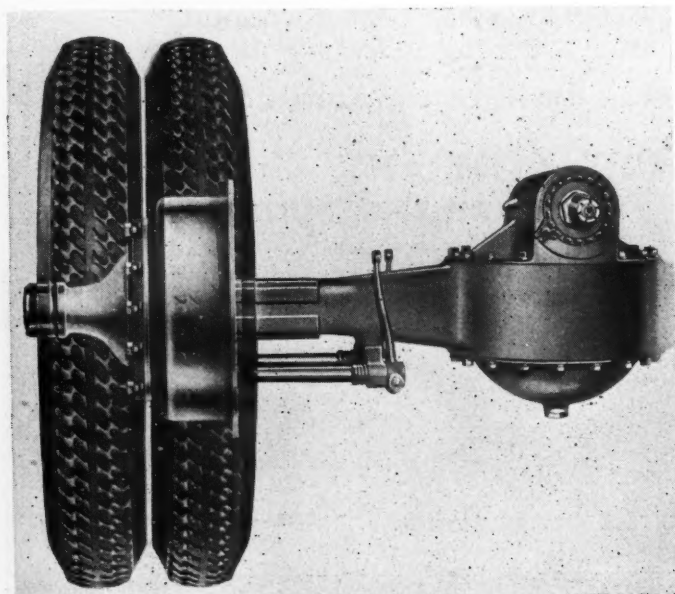
The construction of this axle in general follows the Sheldon worm drive design together with certain refinements to make it adaptable for light bus use. The standard gear ratio is 5.5 to 1.

The differential carrier is so constructed that the worm wheel and differential are assembled in one carrier unit that is easily removed from the housing.

The housing is of the banjo type, cast in steel to permit of thin sections being used. A removable cover is provided to



Type F-13 Sheldon Axle for Buses. Can be Used Inverted



improved, as the worn wheel rotates in a forward direction 99½% of the time and in doing so carries oil to this hard-working bearing.

Special care has been taken to provide practically automatic lubrication of all movable parts. The shafts are of high

claimed to save their cost in one regrinding, since they can be installed in less time than would be required for regrinding and at less cost.

The feature of this valve lies in the head, as may be observed from the accompanying illustration. The head consists of two pieces, a solid crown and a flexible seating plate. There is a slight separation between these two parts, which is exaggerated in the illustration to show the principle. This slight separation absorbs the customary clicking noises ordinarily heard, thereby giving silent operation the basic feature of the valve. When the valve is closed under pressure of the valve spring and gas explosion the flexible seating plate is drawn tightly against the solid crown with an outward radial movement that cleans the valve seat on top of the block at every operation. By reason of this regrinding it is claimed to be unnecessary.

Phantom, Showing the Wheel Assembly

Although not shown the bearings are close to the center of the dual tires.

Boyle Valves

Boyle valves, manufactured by the Boyle Valve Co., Chicago, Ill., are designed for all poppet valve engines. They are



Human Reasons Behind Garford Excellence

In the mind of the man who really knows commercial cars, Garford Trucks and Coaches occupy a decidedly distinctive place. They have been put there by a definite creative policy pursued consistently for twenty-two years.

We have compiled into an attractive book some interesting and illuminating stories about the men in whose hands rest the administration and development of this policy. Reading this book will give you a better understanding than you've

ever had before of the reasons behind Garford solidity and permanency.

And you will realize better why it is that users who own, and dealers who handle, Garford Trucks and Coaches evince but little interest when someone talks about other similar vehicles at a lower first cost.

This advertisement is printed as a cordial invitation for you to ask us—on your business stationery, please—for our book, "Behind the Garford." You'll find it well worth while.

Busses
15 to 35 Passengers

GARFORD

Trucks
1 to 7½ Tons

Beginning in 1902, Garford is now among the eight companies manufacturing 78% of the bona-fide trucks

GARFORD MOTOR TRUCK COMPANY, LIMA, OHIO

BUILDING TODAY FOR TOMORROW'S REQUIREMENTS

Essentials of a Successful Dealer

(Continued from page 32)

buyer and permit a profit after repairs, parts, overhead and selling are charged against the truck. The salesman has nothing to do with the trade-in except to report the truck to the truck department. The appraiser does the rest. He investigates the offering and fills out the used-car appraisal sheet, illustrated herewith. This form differs from the conventional in that it is a flat-rate cost sheet, and the feature is that guesswork is eliminated.

As will be noted, the time for any given operation, also the parts and labor are itemized. The actual selling price (in good condition) is then set down and to this is added the overhead and selling expense. The sum total of these is deducted from the selling price. The difference is the appraisal value which the company will allow for the truck. A certain percent is used for the selling expense. If the truck offered is "junk," it is bought on this basis and scrapped. The salesman is advised as to the purchase price of the offered truck and the price is final. There are no arguments by the

salesman, no efforts to persuade the head of the truck department to stretch the offer because, "I can close the deal," etc. In summing up the trade-in policy there is no deviation from the rule outlined. It is simply a case of applying sound business methods and letting the competitor buy when the owner expects too much.

The third problem is truck merchandising, which is the inability of the dealer to make a profit on his service department, is not a problem with the Bonnell organization. The trucks are serviced on a flat-rate basis, and despite the fact that 24-hour service is given five nights per week, the truck service shows a consistent profit. The service methods and rates will be described in a later issue. Although the used truck department has been combined to a certain extent with the used passenger car department, these have recently been separated.

While there is nothing unusual about the Bonnell organization, unless real business methods are unusual, the success of this organization in the truck field proves that your success as a truck dealer depends to a great extent on **your mental attitude towards the business.**

practice will be given those who want it. An interesting machine is an electrically-driven device that is used for re-boring motor cylinders to permit the installation of new pistons.

Two of the largest manufacturers of shop equipment in the country, the Weaver Manufacturing Co. and the Manley Manufacturing Co., have a good representation in this traveling shop. Precision tools of every description also are shown—micrometer, calipers, dial gages, speed indicators and all the myriad devices used by real mechanics.

The truck is a Republic 3-ton job, model 19. The body is a San Antonio product, and is a very ingenious piece of work. The panels are so arranged that the upper one lifts to form an awning, while the lowers drop to form a standing platform. Special compartments and drawers have been built for small tools.

The truck is painted bright orange, with black trimmings, while the Service Association slogan, "The Best Equipped Shops Get the Business," is painted on each side, as also the firm name, with the words San Antonio in 18-in black letters showing out very prominently.

Federal Government Finds Market for 11,800 Vehicles

A total of 11,800 automobiles and trucks comprise the automotive vehicle seizures of the federal government, taken during the past three years, in the enforcement of the national prohibition act. The annual report of Prohibition Commissioner Haynes, just made public, shows that from the sale of these confiscated automobiles a total of \$1,440,000 was realized, or an average of \$130 per vehicle.

Under the rules of the prohibition department most automobiles are sold by individual auction, although in cases of large lots of cars and trucks—as in quarterly sales—the sale is made by "blind bidding." Under such practice expensive automobiles have been bid in for as low as \$10, while other "blind bids" have brought big sums for old cars.

The report shows 177,000 arrests in the three years, with 39,000,000 gallons of liquor seized and 444 ships confiscated. \$18,000,000 in fines were collected and sentences totaling 7,000 years imposed.

Traveling Service Station Educates Dealers on Shop Equipment

THE Straus-Frank Co., distributors of automotive supplies and motor service equipment, has started one of the most interesting and unusual campaigns ever attempted in the Southwest.

Using a large Republic truck, they designed a special body which has been fitted up as a traveling motor service equipment display and shop, showing a complete shop ready to operate, equipped with the latest and most modern devices for the maintenance and servicing of motor vehicles. This will be taken to every dealer in the San Antonio trade territory, who does motor service work.

This field truck is in charge of an expert, George S. Marlette, service engineer of the Straus-Frank Co., a man of years' experience in this line of work, who is able to really help the dealer cope with his shop problems. He is accompanied by J. Pender and C. Hughes, representing the Weaver Manufacturing Co., manufacturers of shop equipment, and other factory representatives.

The truck will make a complete tour of the entire territory contiguous to San Antonio, which, it is expected, will last for a period of six months.

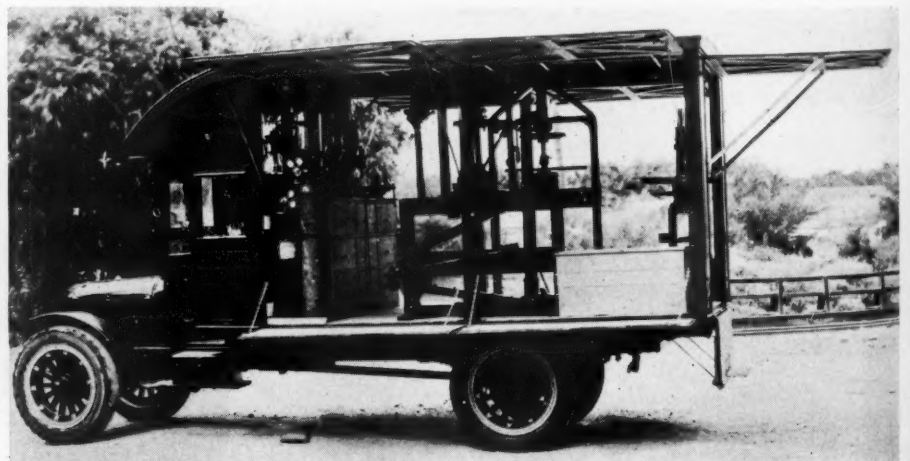
Successful service stations today, according to Ray Simpson, manager of the automotive department of the Straus-Frank company, are those that are ambitious to build their business on a sound foundation and give full value to their customers, and especially those dealers who are working into the popular flat-rate shop system. The latter are rapidly

adopting proper equipment to take care of the maintenance work in accordance with factory practices.

It is the purpose of this campaign, by display and demonstration, to aid the dealer in his selection of equipment and how to make correct use of it.

All the machinery is ready for actual use, connected up and ready to run at the touch of a button. There is a complete line of Black and Decker tools, electric drills on bench stands, electric polishing and grinding machines, and an electric valve refacing and reamer sharpening machine.

A complete welding and cutting outfit is ready to operate and instruction in this



A Traveling Motor Service and Equipment Display and Shop

THE COMMERCIAL CAR JOURNAL

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Washes Cars Thoroughly Less Injury to Paint Finish

The Curtis Air-Mist Car-Washing System is entirely different because it does *not* throw a solid stream of water that strikes against the car body and damages the finish.

It is designed to properly proportion and mix compressed air with the water supply available so that it *atomizes* in the exclusive Curtis Nozzle and is delivered to the car surface as a fine mist spray under high pressure. This mist penetrates the caked-on dirt, which is thoroughly softened and quickly washed away without injury to the finest paint.

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Especially valuable for quickly and easily washing chassis, including the under side of fenders, the springs, axles, steering knuckles, and places usually inaccessible with the ordinary sponge and brush method.

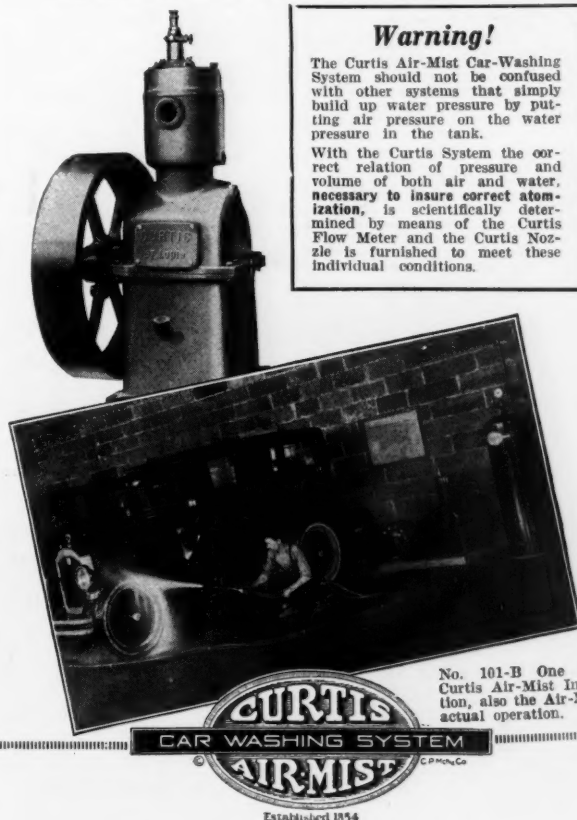
Send for bulletin describing the complete Curtis Air-Mist Car-Washing System, together with full information, our proposition and prices.

CURTIS PNEUMATIC MACHINERY CO.

1507 KIENLEN AVENUE

ST. LOUIS, U. S. A.

Branch Office: 537-C Hudson Terminal, New York City



Warning!

The Curtis Air-Mist Car-Washing System should not be confused with other systems that simply build up water pressure by putting air pressure on the water pressure in the tank.

With the Curtis System the correct relation of pressure and volume of both air and water, necessary to insure correct atomization, is scientifically determined by means of the Curtis Flow Meter and the Curtis Nozzle is furnished to meet these individual conditions.

No. 101-B One Nozzle
Curtis Air-Mist Installation,
also the Air-Mist in
actual operation.

Curtis Pneumatic Machinery Co.

1507 Kienlen Ave., St. Louis, Mo.

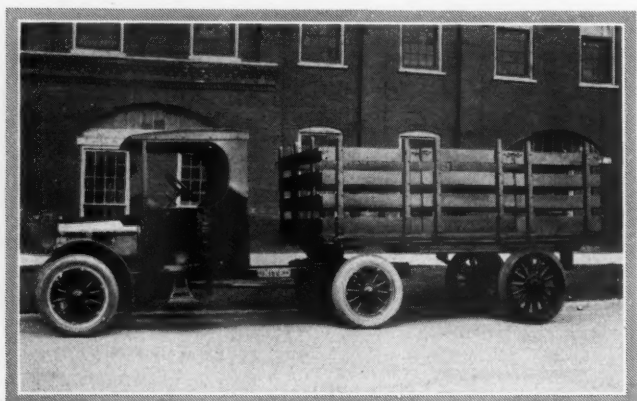
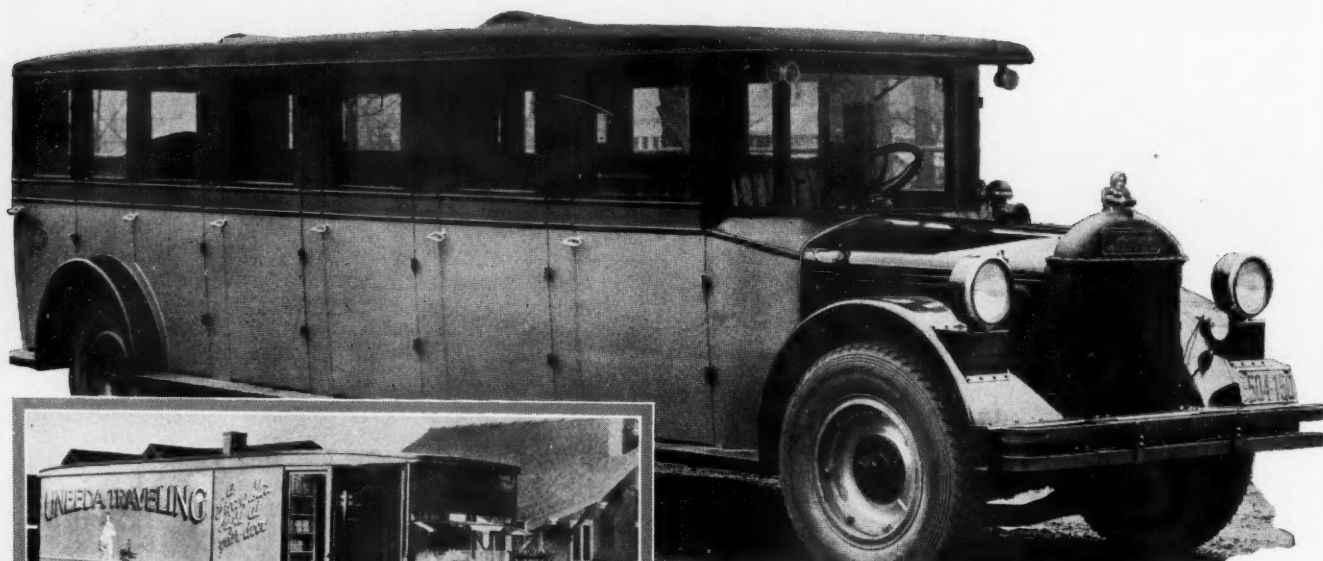
Gentlemen: Please send me full details on Curtis Air-Mist Car-Washing Systems, your proposition and prices.

Name

Address

Jobber's Name

Address



Business is Good

with the dealer in commercial vehicles who handles a line that is complete as to sizes, that is built by an organization having behind it an uninterrupted record for a quality product, plus real co-operative dealer policies.

United Dealers are going to cash in on prosperity because the United line fulfills all of these requirements.

It is a significant fact that most United sales are made as the result of comparisons and competitive tests made with other trucks, usually selling at a considerably higher price. And, once sold the United, a buyer is converted from a mere prospect into a sure customer from then on.

Progressive dealers will find it to their advantage to get in touch with us now regarding the United franchise in their territories.

UNITED MOTORS PRODUCTS COMPANY
GRAND RAPIDS **MICHIGAN**
"QUALITY TRUCKS SINCE 1910"